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CITY OF WORCESTER MASSACHUSETTS

WORCESTER DEPARTMENT OF PUBLIC WORKS & PARKS



OPEN SPACE & RECREATION PLAN

UPDATE 2020





Blackstone Gateway

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As with any undertaking of this magnitude, a multitude of other City departments, agencies, commissions; federal, state and regional agencies; non-profit agencies, and other entities contributed to the development of the **2020 Worcester Open Space and Recreation Plan Update** by providing valuable support and advice.

In particular, project proponents would like to express a debt of gratitude to the hundreds of Worcester residents who took the time to complete a survey or to attend a meeting in a generous effort to express their thoughts about Worcester's amazing system of parks, open space and recreation assets.



Cristoforo Colombo (East Park) Playground

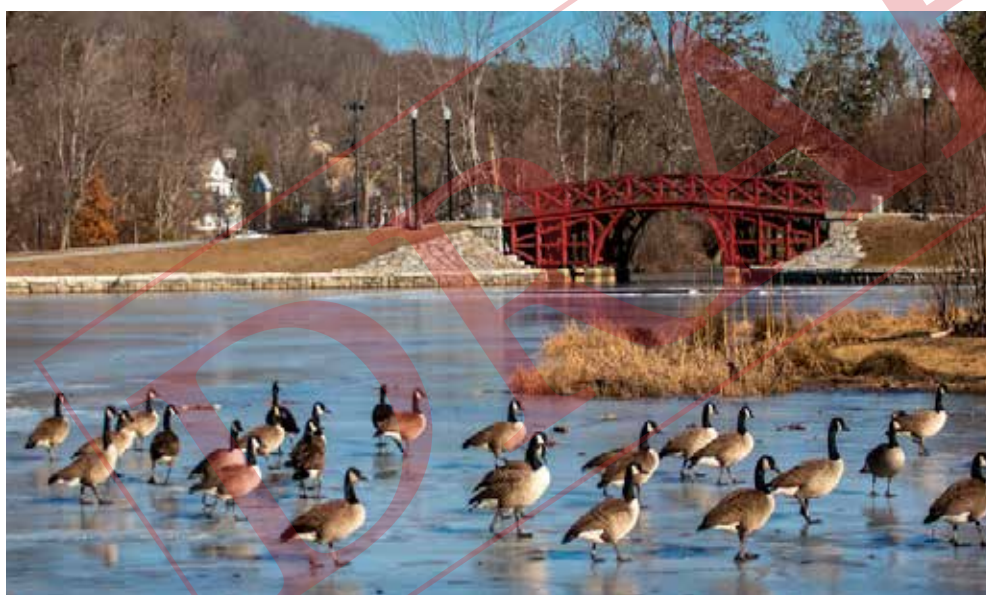


Holmes Field

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Elm Park



Worcester City Hall and Common

PLAN SUMMARY

In many ways, the completion of a city-wide open space and recreation plan is a celebration of people, places, and of constructive thought about how best to go about preserving and enhancing highly visible and critically important public park and open space assets, and the inherent recreational program offerings.

This Open Space and Recreation Plan Update has come together over a one-year period. During that time, hundreds of residents, advocacy groups, open space and recreation related stakeholder, have contributed positive ideas that are now reflected throughout this document, but particularly present in Section 09 Seven Year Action Plan.

This plan is about making Worcester competitive and attractive in the face of a changing world with shifting priorities, and an ever-evolving local demographic.

A park and open space system is not a stand-alone or isolated complex within a community. In fact, where parks and open space systems provide the most value to its citizens is through a highly integrated, connected, accessible series of properties and programs where good health and well-being, athletic competition, informal play, culture, art, history, social interaction, and just basic fun get woven together to form amazing and wonderful parts of everyday life.

To gain insight into the most basic yet key aspects of this document in relation to the work that needs to be done, the following sections are referenced:

- Section 06 Community Vision
- Section 07 Analysis of Needs
- Section 09 Seven Year Action Plan

A review of these three sections will inform readers about significant community priorities and preferences.

In particular, we direct focus to Section 09 Seven Year Action Plan for the full range of actionable items that serve as the outgrowth of a highly collaborative and advertised public process. This Action Plan will help provide the framework to guide the community forward.

It has been heartening to observe the breadth of interests related to the protection and enhancement of Worcester's Park, Open Space and Recreation System. To this end, the Action Plan contains nearly 90 items to be advanced over the next 7 year period.

Many action items will require funding from federal, state, or local sources. Other items may obtain funding through community partnerships (corporations, institutions, other non-profit and benevolent organizations). Some action items require no funding at all as they will be accomplished through the good will and contributions of volunteers. And finally, other action items represent a shift in current policy or a new policy that is intended to promote, protect, and enhance public open space assets in fair and equitable ways throughout the City of Worcester.



Soldiers' Monument at Worcester Common

Action items are intended to accomplish the following 12 goals:

Goal 1	Enhance Natural and Cultural Resources
Goal 2	Improve Water Quality and Public Access to Recreational Water Resources
Goal 3	Continue to Invest in Recreation Facilities
Goal 4	Upgrade Delivery of Parks and Open Space Maintenance Services
Goal 5	Integrate Parks and Open Space Planning
Goal 6	Promote Urban Landscape Improvements
Goal 7	Improve Open Space System Connectivity
Goal 8	Plan/Design Open Space Improvements to Meet Current and Future Needs
Goal 9	Expand Recreational Programming
Goal 10	Resiliency of Open Space
Goal 11	Establish Benchmarking Protocols for the Department Of Public Works & Parks
Goal 12	Funding for New Programs and Facilities that Promote Diversity, Equity and Inclusion (DEI)



Blithewood Park

In response to these **twelve basic** areas of focus, the Action Plan identifies ways to enhance Worcester's Open Space and Recreation System through:

- Continued commitment to developing master plans, and feasibility studies that establish specific means to improve park and open space facilities and assets.
- Aggressive pursuit of funding for all aspects of the Action Plan.
- Continued building of advocacy networks.
- Establishment of new partnerships with key benefactors and other constituencies.
- Continued capital investment geared to the improvement of active and passive recreation facilities throughout the parks system.
- Continued commitment to making all assets within the parks, open space, and recreational system fully ADA compliant and multi-generational.
- Continued capital investment geared to the protection and enhancement of natural resources.
- Aggressive pursuit of funding to continue the acquisition of key properties that enhance the protection of environmental resources, protect drinking water supplies, and provide recreational value.
- Establishment of policies, programs and infrastructure improvements that improve access to recreational water resources, makes city roads more accommodating to pedestrians and bicyclists, and create stronger connections between open space assets.

Today, Worcester is the second largest city in New England with approximately 185,428 residents (2019 Census). By 2030, the Donahue Institute of the University of Massachusetts estimates that the population will grow by 6.7%. The population increase will likely include more senior citizens, and non-native speaking families. In response to these demographic changes, the City of Worcester will continue to offer meaningful opportunity for active and passive recreational pursuits within the parks, open space, and recreation system as part of its core mission.

With more than 3,700 acres of protected open space (approximately 17% of all City land area) and a committed citizenship, the City of Worcester is well-positioned to make continued gains in protecting and enhancing a truly amazing and wonderful open space system through 2027 and beyond.

Source: Census Bureau 2010

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Elm Park

INTRODUCTION

A. STATEMENT OF PURPOSE

The intent of this Open Space and Recreation Plan Update is to:

1. Evaluate the 2013 Master Plan and report progress made since the plan was adopted.
2. Identify new and update current goals, objectives, needs, priorities, and actions for the next seven-year period.
3. Develop a seven-year strategy that implements stated goals, objectives and addresses the most critical open space and recreation needs.
4. Present pertinent and comprehensive information about Worcester's diverse and expansive parks, open space, and recreation system.
5. Assess the existing parks, open space, and recreation assets in relation to the existing and projected needs of Worcester's diverse population.
6. Integrate and align the goals and objectives identified in the 2020 Open Space and Recreation Plan with other city programs and initiatives that promote good health, diversity, climate resilience, well-being, and economic advancement.
7. Establish a guideline that will help the City to take full advantage of its open space opportunities while making sure that these resources are protected and enhanced for the enjoyment of future generations of Worcester.
8. Continue to make the City eligible for state and local funding through a variety of programs including PARC, LAND, Land & Water Conservation, Mass Trails, Mass Municipal Vulnerability Preparedness and other park, recreation and open space related initiatives.

ACCOMPLISHMENTS SINCE 2013

Open Space and Recreation Plans have been prepared, submitted and approved by the Commonwealth of Massachusetts, Division of Conservation Services (DCS) for the years, 1987, 1994, 1999, 2006, and 2013. With the issuance of each new plan, the City has sought to achieve a wide range of improvements consistent with the respective Action Plans.

In essence, each updated open space and recreation plan has established dozens of action items, and the City has methodically worked to accomplish each item. Since the breadth of the action items is so expansive and ambitious, it is typical that not everything gets achieved within a 7 year period. And if still a priority, that action item gets rolled over into the next plan as an action item still be addressed.

PARK, PLAYGROUND AND OPEN SPACE PHYSICAL PROPERTY IMPROVEMENTS

Since the 2013 update and with strong funding and a robust economy, the Department of Public Works & Parks has implemented wide ranging advancements to their system under the categories of maintenance, operations, equipment purchasing, and capital improvements totaling nearly \$80M.

Significant capital improvements have been completed at various of park, playground and open space locations including, but not limited to the sites listed below:

Capital Improvements Completed (2013-2020):

- Beaver Brook Park (Dog Park) (2017)
- Betty Price Playground (2014)
- Blithewood Playground (2013 and 2019)
- Cristoforo Colombo (East) Park (2018)
- Cristoforo Colombo (East) Park, Splash Pad (2014)
- Crompton Park (multiple phases, most recent 2020)
- Downtown Dog Park (2018)
- Farber Field (2020)
- Grant Square (2014)
- Green Hill Park (multiple phases, most recent 2020)
- Hadwen Park (2018)
- Harrington Field (2015)
- Holmes Field (2014)
- Hope Cemetery (2018)
- Indian Hill Park (2017)
- Indian Lake Park (2014)
- Institute Park (2020)
- Mulcahy Field (2015 and 2020)
- Oread Castle Park (2017)
- Providence Street Playground (Glodis Field) (2018)
- Vernon Hill Park (Dog Park) (2017)
- Worcester (City Hall) Common (multiple phases, most recent 2018)



Salisbury Park (Bancroft Tower)

Other improvements are currently being constructed or planned at the following sites for 2021:

Capital Improvements Planned or in Progress:

- Binienda Beach at Mill Street
- Coal Mine Brook
- Coes Park
- Columbus Park (Boardwalk trail)
- Crompton Park (Skate Park)
- Green Hill Park
- Indian Hill
- Institute Park
- Mulcahy Field
- Shore Park

MASTER PLANNING INITIATIVES

The City has funded master planning efforts for individual parks and open space properties. The purpose of these master planning efforts is to partake in a public process that engages neighbors, city residents, and other stakeholders in a conversation about the future of a particular park or open space property. The process is very effective in clarifying park and open space needs and priorities, solidifying public support and in securing the necessary funding streams for facility upgrades, often under a phased approach.

For instance, the City embarked on a master planning process for Crompton Park, a 12-acre park/playground property located 15 blocks south of Worcester City Hall serving a very diverse, environmental justice community. A series of public and stakeholder meetings were held over a six-month period and a formal Master Plan was developed for the site. The Plan was adopted in 2011 by the Parks and Recreation Commission and the Worcester City Council.

With a publicly supported and prioritized master plan in hand, the City is now embarking on a fifth phase of capital improvements at Crompton Park, after investing nearly \$6M during four earlier phases. The latest phase includes design of a state of the art skate park that will serve a highly connected and energized user group that draws from all facets of Worcester's population. And for larger properties like Crompton Park, the City advises community representatives that it may take a decade or more to fully implement a comprehensive park master plan.

Master Plans Completed (2013-2020):

- Betty Price Playground (2014)
- Burncoat Park and Holland Rink (2016)
- City-wide Playground Safety Inspections (2015)
- City-wide Dog Park and Study (2016)
- City-wide Rectangular Field and Study (2017)
- Grant Square (2014)
- Great Brook Valley Playground (2018)
- Greenwood Park (2014)
- Hadwen Park (2018)
- Harrington Field (2015)
- Holmes Field (2014)
- Hope Cemetery (2018)
- Indian Hill Park (2017)
- Indian Lake (2014)
 - Indian Lake Beach
 - Morgan Landing
 - Shore Park
- Mulcahy Field (2019)
- Oread Castle Park (2014)
- Shale Street Playground (2017)
- South Worcester Playground (2015)
- Tacoma Street Playground (2018)

EXPANSION OF THE PARKS AND OPEN SPACE SYSTEM

The City actively pursues the acquisition or conservation restrictions to new properties that can provide open space and/or recreational value to the citizens of the Worcester. This endeavor takes many different approaches and relies heavily on the support and collaboration of private entities. Some of the City's most important partners in open space preservation are the Greater Worcester Land Trust (GWLT) and Massachusetts (Mass) Audubon, who are custodians (through conservation restrictions) or outright owners of hundreds of acres of open space within the City's confines.

GWLT and Mass Audubon, in partnership with the City, are committed to seeking opportunities to preserve unprotected open space assets and enhance the existing ones through new contiguous acquisitions in order to provide expanded opportunity for public use and enjoyment, wildlife habitat protection, and watershed protection. In many cases, these lands merge into other City-owned lands (that are under the ownership of various departments including Conservation Commission and Department of Public Works & Parks) to create impressive strings of connected public open space.



Following is a summary of achievements in relation to the purchase or gaining of rights to new park and open space resources since adoption of the 2013 Open Space and Recreation Plan.

PARK LAND ACQUISITIONS SINCE 2013

- Downtown Dog Park
- 149 West Boylston Drive
- Trinity Woods at Green Hill Park- 12 Acres (by GWLT)

PRIVATE PARTNERSHIP LAND PROTECTION SINCE 2013

- Worcester City Campus Corporation - 5 Acres

CONSERVATION COMMISSION ACQUISITIONS SINCE 2013

- Ball Property (CR by GWLT and Mass Audubon)
- Crow Hill Savannah (CR by GWLT)
- Moreland Woods (CR by GWLT)
- Park Hill Road (CR by Mass Audubon)

REGULATORY (POLICY) ACCOMPLISHMENTS

- **Streetscapes**
 - Streetscape Policy and Urban Design Guidelines for downtown and other urbanized areas in the City.
 - Parking Overlay Districts reducing parking requirements along commercial corridors.
 - Outdoor Dining Zoning Ordinance Amendment promoting the character and vitality of street life throughout the City.
- **Floodplains**
 - Amendment of the Floodplain Overlay District Map and Ordinance.
- **Other Published Plans and Reports:**
 - Green Worcester Plan, 2021
 - Municipal Vulnerability Preparedness Plan, 2019
 - Worcester Cultural Plan, 2019

COMMUNITY PARK AND OPEN SPACE PARTNERSHIPS

- Assumption University
- Babe Ruth Baseball
- Becker College
- Bancroft School
- Clark University
- Columbus Park Neighborhood Association
- Friends of Coes Pond
- Friends of Hope Cemetery
- Friends of Institute Park
- Friends of Newton Hill
- Greater Worcester Land Trust (GWLT)
- Green Hill Park Coalition
- Green Islands Neighborhood Center
- Greendale Youth Flag Football
- Holy Cross
- Indian Lake Watershed
- Leslie Saffer
- Lifesong Church
- Little League Baseball
- Main South CDC
- Massachussets Vietnam Veteran Memorial
- Massport
- Massachusetts College of Pharmacy and Health Sciences (MCPHS)
- Regional Environmental Council
- Park Spirit
- Regional Environmental Council
- Seven Hills Foundation
- St. Vincent's Hospital System
- Steven Hill Foundation
- Scott Babbitt
- South Worcester Neighborhood Center
- Tatnuck Square Neighborhood Association, Inc.
- Tenacity
- The Commonwealth of Massachusetts Trial Court Community Service Program
- UMass Memorial Hospital System
- Worcester Cowboys
- Worcester Flag Football
- Worcester Garden Club
- Worcester Technical High School
- Worcester Tree Initiative
- Worcester State University
- Worcester Youth Soccer
- Worcester Vikings
- Working for Worcester
- Worcester Polytechnic Institute (WPI) - Alumni
- Windows Presentation Foundation (WPF)
- YMCA of Central Massachusetts
- 508 Cleanup Club - College of the Holy Cross

B. PLANNING PROCESS & PUBLIC PARTICIPATION

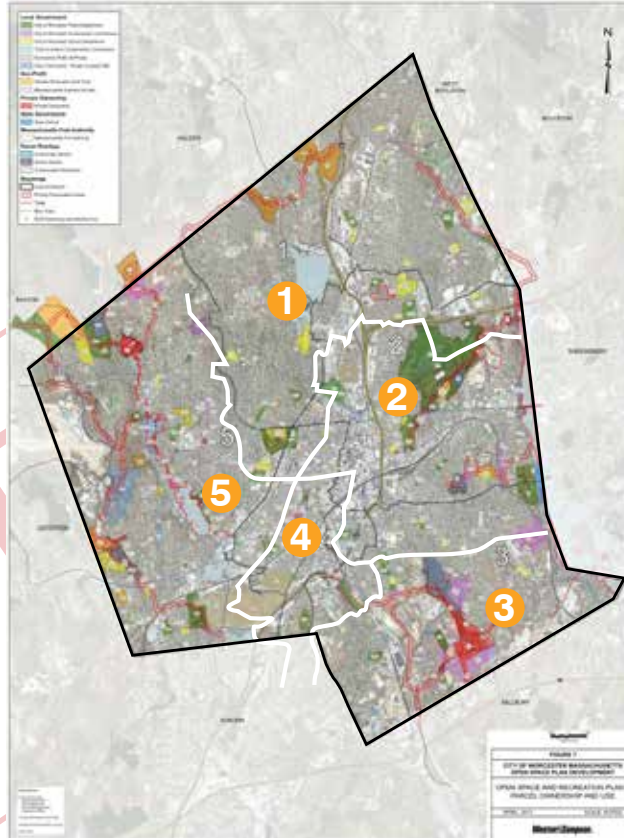
The update to the 2013 Open Space and Recreation Plan represents a collaborative effort between the City of Worcester Department of Public Works & Parks, Worcester Planning and Regulatory Services, and Weston & Sampson.

Greater Worcester Land Trust and Mass Audubon, have also played a significant role in this undertaking; particularly offering insight at various public meetings, updating mapping, compiling various inventories of lands, and in helping to set new priorities for open space protection and enhancement.

It is noteworthy that this effort has been supported and strengthened through the input of hundreds of residents of the City and through the advice and consult of representatives of many City institutions, environmental stewardship groups and other governmental entities.

To foster public dialogue, a comprehensive approach to public outreach was established and included three primary approaches:

1. Public meetings
2. Other stakeholder meetings
3. Public surveys



Worcester District Map

1. PUBLIC MEETINGS

(Refer to Appendix B Public Meeting Notes for meeting announcements and corresponding public feedback).

More than fifteen public meetings were held in order to present information and receive public advice and comment. Meetings were held in all five City districts.

Of note, during the second round of District Meetings, a virtual public meeting format was followed in compliance with social distancing guidelines established in response to the COVID-19 pandemic.

Meetings were widely advertised using a variety of means (e-mail to various user/stakeholder mailing lists, post cards, notices in traditional media sources, other electronic and social media sources).

The following general, city-wide public and key stakeholder meetings were held:

Meeting	Location	Date
First Round Meetings		
District 1	Bancroft School FH, 110 Shore Drive	18-Dec-19
District 2	Green Hill Park, 50 Skyline Drive	13-Nov-19
District 3	Lake Park, 600 Hamilton Street	20-Nov-19
District 4	Crompton Park, 50 Canton Street	11-Dec-19
District 5	Beaver Brook Park, 9 Mann Street	4-Dec-19
Commission on Disability	City Hall, 455 Main Street	19-Nov-19
Conservation Commission	City Hall, 455 Main Street	27-Jan-20
Sports Leagues/Permit Holders	Green Hill Park, 50 Skyline Drive	30-Jan-20
Second Round Meetings		
District 1	Bancroft School FH, 110 Shore Drive	2-Mar-20
District 2	Green Hill Park, 50 Skyline Drive	9-Mar-20
District 3	Virtual	14-Dec-20
District 4	Virtual	21-Dec-20
District 5	Virtual	23-Dec-20



Public Meetings, 2020

2. OTHER STAKEHOLDER MEETINGS

In addition to the public and key stakeholder meetings listed previously, we also met with, or contacted and received information from, individual stakeholder groups and other City and Regional Agencies, including those listed below:

- Central Mass Regional Planning Commission (CMRPC)
- Conservation Commission
- Department of Public Works and Parks
 - Water Operations
 - Sewer Operations
- Greater Worcester Land Trust (GWLTL)
- Green Worcester
- Planning and Zoning
- Worcester Arts and Culture
- Worcester Elder Affairs
- Worcester Planning and Regulatory Services

3. PUBLIC SURVEY

To garner meaningful public input, the City established the “Worcester Park, Recreation & Open Space Plan Public Survey” and made this available in both electronic formats (with a link on the City’s front web page) and in paper formats. The survey was prepared with input from Worcester Office on Disability, Worcester Division of Planning and Regulatory Services, and in accordance with the State Division of Conservation Services Guidelines.

The results of the survey helped to identify and confirm critical City-wide park, open space and recreation goals, objectives, needs, actions and priorities. (Refer to Appendix C Public Survey Results for an analysis of the feedback and hard copies of surveys).

The information received through the public outreach process (at the general City-wide public meetings, other stakeholder meetings and through the public survey) has been thoughtful, useful, and far-reaching and has informed the scope and breadth of this 2020 Open Space and Recreation Plan update.

The simple list below identifies a bit of demographic information about the on-line respondents and some common themes from their answers to the various questions posed. With more than 1,000 residents participating, this data is by far the source of the most comprehensive and in many ways relevant information because in total this represents the key constituencies.

62% of respondents have lived in Worcester for more than 11 years.

38% of constituents have lived in the same home/apartment for more than 11 years, signaling a population that is fairly mobile and moves with some frequency.

No surprise perhaps, **97%** of respondents ranked park and open space assets as being very important or important in their daily lives.

34% of respondents indicated that their recreation needs could be better met by the array of facilities located within their neighborhood (so not surprising again, this means that there is some work to be done).

62% of respondents listed Elm Park as one of their top five parks visited. This is reflective of the park’s central location and accessibility with large residential and institutional uses surrounding. Next most visited was Green Hill Park. Yet Green Hill Park, with all of its acreage, is less accessible with surrounding neighborhoods set well back from the park’s interior, where many of the most resonant recreational assets are located.

- **62%** of respondents visit a park at least once per week, while nearly a third visit a park three or more times per week.
- Of those respondents who indicated that they rarely visited parks, a third of them indicated it was because of poor conditions. This again speaks to the fact that further improvement is needed, and it also may be an indication that it is sometimes hard to change public perception. If the condition of a park amenity was once viewed in a negative light, that perception carries forward until that individual revisits a property to realize that in fact improvements have been made since the last time they visited.
- Residents feel that sidewalks and bicycle lanes are important elements that enhance access to parks.
- Many residents are keenly focused preserving and enhancing passive recreation opportunities and environmental resources. When asked what needs most improvements, large majorities indicated protecting open space, improving hiking/walking/running trails.
- When asked to identify new amenities, over 1,000 responses identified the need for new hiking, walking, running trails, and other popular responses included bicycle accommodations, restrooms, skateparks, indoor recreation, aquatics facilities, water access, wildlife observation and picnicking amenities.



Holmes Park

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Green Hill Park

COMMUNITY SETTING

A. REGIONAL CONTEXT

(Refer to Fig.1 Regional Context Map, Appendix A)

The City of Worcester is located in the heart of Central Massachusetts and to a larger extent the heart of New England. Over one million people live within a 25-mile radius of the city, six million within 50 miles and more than eight million within 75 miles.

Worcester is the second largest City in New England. It is densely populated (4,844.5 persons/ square mile, 2010, Census), with a total estimated population of 185,428 in 2019 (Census Bureau, 2019).

The City is the educational, medical, and commercial hub of Central Massachusetts. There are seven universities and colleges located within the City limits and several major hospital systems. Worcester has a labor force of 60.3% (Census Bureau, 2019).

The City is surrounded by the towns of Paxton, Holden, West Boylston, Shrewsbury, Grafton, Millbury, Auburn and Leicester. Worcester is easily accessible to the rest of New England via the Interstate Highway System and other major federal and state highways. Interstate I-190 and I-290 intersect just to the north of Worcester's city center. Route 146 connects Worcester and Providence, Rhode Island. Interstate I-90 (the Massachusetts Turnpike), I-395 and I-495 are within minutes of Worcester's city center.

Boston is located 42 miles to the east and New York City is 178 miles to the southwest. Worcester Regional Airport provides convenient connections to jet service in central Massachusetts and access to airports in Boston, MA, Manchester Airport, NH, Bradley International Airport, CT and T.F. Green Airport, RI. Since its purchase by Massachusetts Port Authority in 2010 the airport has served over 750,000 passengers and offers connections to over 120 destinations.

Amtrak trains connect Worcester to 500 cities nationwide. Additionally, the City is well served by rail links in all directions, including the CSX Intermodal Terminal located to the east of Worcester's Union Station. At present, the Massachusetts Bay Transportation Authority (MBTA commuter rail) operates 20 trains between Worcester Union Station and Boston South Station during the work week with 9 trains running on Saturday and Sunday. An express service provides direct daily connections between Worcester and Boston. The Worcester Regional Transit Authority (WRTA) operates an expansive bus system with service to 37 Central Massachusetts cities and towns.

Worcester possesses a varied natural landscape with many hills, dense woodlands, expansive wetlands, lakes, ponds, and waterways. Its central location also provides residents easy access to other parts of the Northeast and their natural resources such as the Atlantic coastline to the east, the Berkshire Mountains to the west and the Green and White Mountains of Vermont and New Hampshire to the north.



Photo courtesy Worcester Historical Museum, circa 1855.

B. HISTORY OF THE COMMUNITY

Worcester is a City formed by its geography and natural resources. Its manufacturing heritage used the City's water resources as part of many production processes. Industrial factories were constructed in the valleys and workers found housing in the surrounding seven hillsides. The multitude of hills made it possible for various ethnic groups to find housing in contiguous and readily definable neighborhoods. Roadways and public transportation were structured in ways which accommodated Worcester's dramatic topography. A few distinct roads crossed or skirted Worcester's hills, connecting its many residential areas to the places where people went to work or to shop. Open spaces, including parks and playgrounds, were integrated into the fabric of Worcester's neighborhoods, as were schools. (Worcester Master Plan, 1987).



Blackstone Canal. Photo courtesy Worcester Historical Museum.

Much of Worcester's development during the late 19th and early 20th centuries was linked to its rivers and rails for the manufacturing of fundamental goods. Worcester's dense developments (commercial and residential) were concentrated around those transportation channels in the City's urban core, with newer residential areas spreading outward to the rural countryside.

Established as a town in 1722, Worcester's growth can be traced closely to the growth of industrial America. Inexpensive power and transportation via the Blackstone Canal (1827-1848) reinforced an industrial boom that began with industrial textile production in the 1790's. The Blackstone Canal was built to link Central Massachusetts to the Atlantic via Providence, RI and was short lived as it was soon replaced by the railroad as the transportation mode of choice.

Worcester evolved into a major manufacturing center for small industries as well as large nationally known producers of machinery, hardware, and wire.

The streams, ponds and canals that aided Worcester's early growth became a disposal system for the industries they once fueled. By the mid to late 19th century, these water resources had become an environmental nuisance and were either filled in or covered. Recent studies such as the "Blackstone River Valley Special Resource Study Report" indicate the importance to support the preservation, protection, and interpretation of the Blackstone River and Canal as part of a national industrial heritage.

The city has made strides in addressing significant issues related to water quality, portable water supply and impaired water resources by constructing and improving water treatment facilities. Along with these efforts, there is a history of providing parks and open space to its residents.



Blackstone Canal, 2020.

FIRST OPEN SPACES

In June of 1669, Worcester established its first open space. The **Worcester Common** was a 20-acre parcel established to serve as a common open space for citizens. Although only 4.4 acres remain, the Common continues to provide vital open space in the downtown area.

In recent years the City has invested over \$6M improving and expanding elements on the Common in an effort to restore lost luster and to establish the space as a major venue for civic activity.

Elm Park, is another historic public park in Worcester. The City acquired the land for Elm Park in 1854, thus making Worcester one of the first cities in the United States to spend public funds to purchase land for use as a public park. Shortly after it's purchased, it was redesigned by the firm of Fredrick Law Olmsted, the same firm that designed Central Park, in New York City.

Both the Worcester Common and Elm Park are on the National Register of Historic Places.

Green Hill Park, is a National Register listed open space in the City. Once an estate belonging to the Green family, in 1850 it became a city park. It is 500 acres of woodland and fields, a petting zoo, scenic memorials and ponds.

Salisbury Park, also listed on the National Register of Historic Places, has the famous Bancroft Tower memorial at its highest point. This tower was built in 1900 by Honorable Stephen Salisbury III, also owner and designer of nearby, Institute Park with Salisbury Pond constructed in 1834. Mr. Salisbury had acquired both of these properties, developed and opened them for public enjoyment. He went to become an honorable member of the Parks Commission in 1887 and donated both parks to the Worcester Art Museum. Salisbury Park and Institute Park were donated to the City in 1912 by the Worcester Art Museum.

PARKS COMMISSION

Worcester formed its first Parks Commission in 1863. In the beginning the Commission's main emphasis centered on urban street trees. Their mission eventually grew to expanding the park system by adding new open space properties. In 1885 the Parks Commission prepared a comprehensive plan that focused on park locations, functions and uses. Worcester hired its first full-time parks superintendent in 1896 to meet the needs of the growing parks system.



View of Green Hill Pond looking toward the Dame ca. 1898

The formal concept for the park system at that time was to connect the City's parks with avenues and boulevards. The Park Commission began to focus on recreational issues and preserving important open spaces in natural states, rather than solely on the maintenance of trees and other horticultural pursuits. The City also established a playground budget to acquire property, construct new playgrounds and improve existing playgrounds. By 1910, Worcester's park system contained approximately 1,000 acres. Since then, Worcester has added over 300 acres to the system.

RECENT HISTORY

The City's Department of Public Works & Parks (DPW) has worked with the Executive Office of Energy and Environmental Affairs to revitalize the City's parks and playgrounds through the use of city capital funds, community development funds, other state and federal funding sources. The City has also formed important partnerships with neighborhood groups, corporations, and higher educational communities to focus on improving the park and open space system.

Like most other municipalities, Worcester's DPW & Parks current challenge is to stabilize and increase operational funding levels in order to maintain the City's expansive open space network at the level desired by residents.



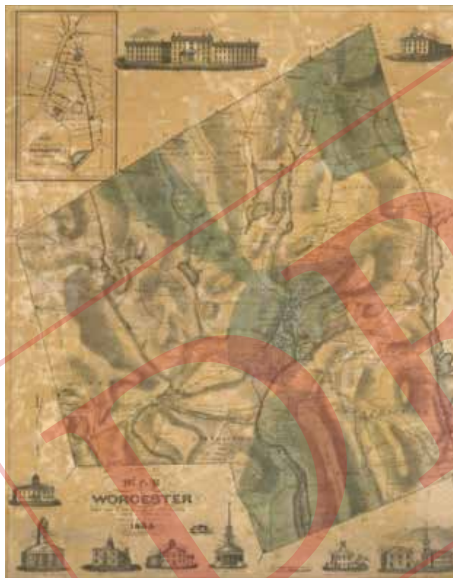
Aerial view of Worcester.

HISTORICAL MAPS

A series of historical regional and local maps, graphically depict the evolution of Worcester, from a small town to an increasingly large regional transportation hub at the center of an expanding railroad system.

Major changes in regional transportation are evident from the construction of the first railroad in 1835 to the consolidation of the railroad network into Old Union Station (1875). This all contributed to Worcester's rapid growth as an industrial city.

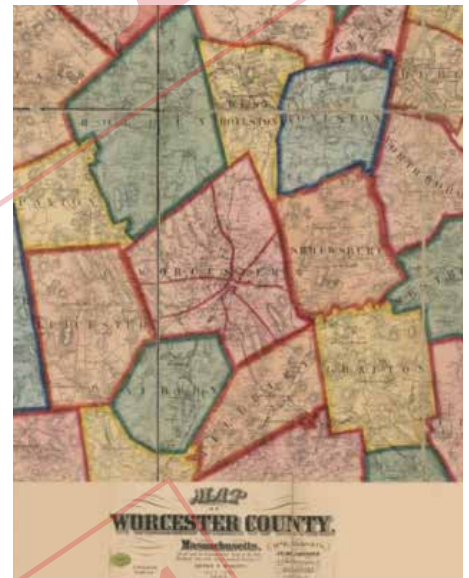
Images courtesy of the Library of Congress.



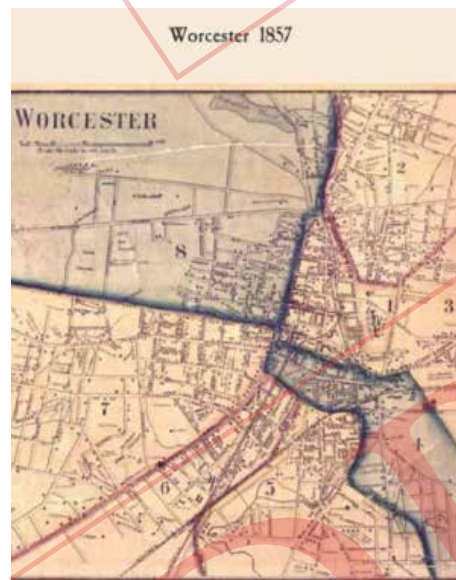
Worcester City Map ca. 1833



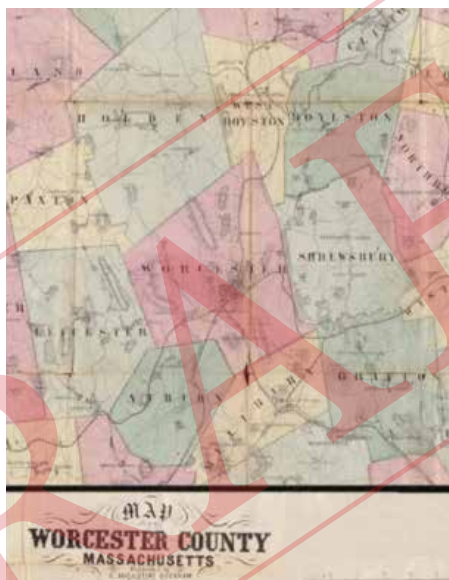
Worcester County Railroad Map ca. 1845



Worcester County Map ca. 1855



Worcester City Map ca. 1857



Worcester County ca. 1866



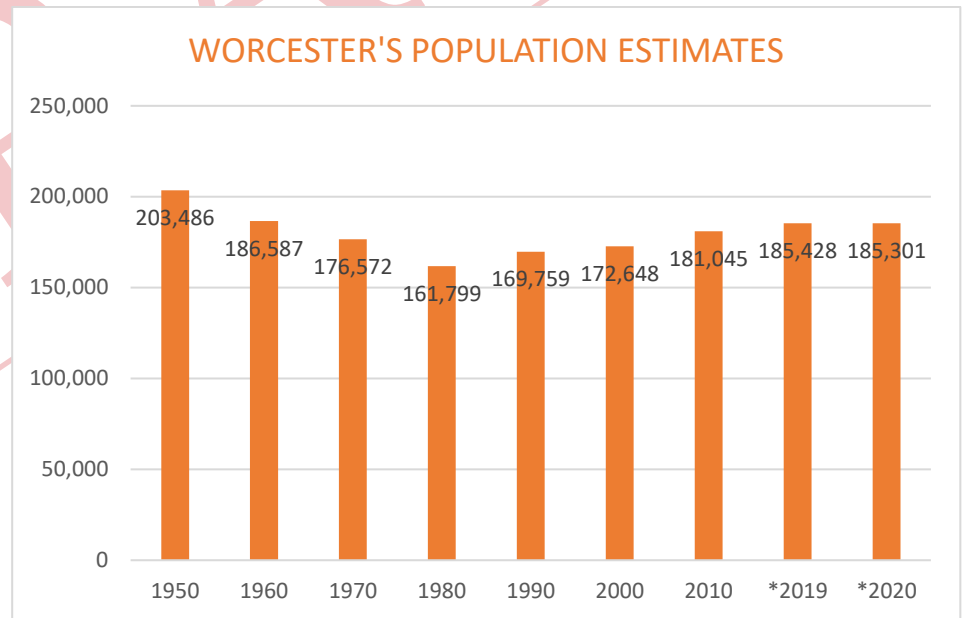
Worcester City Map ca. 1833

C. POPULATION CHARACTERISTICS

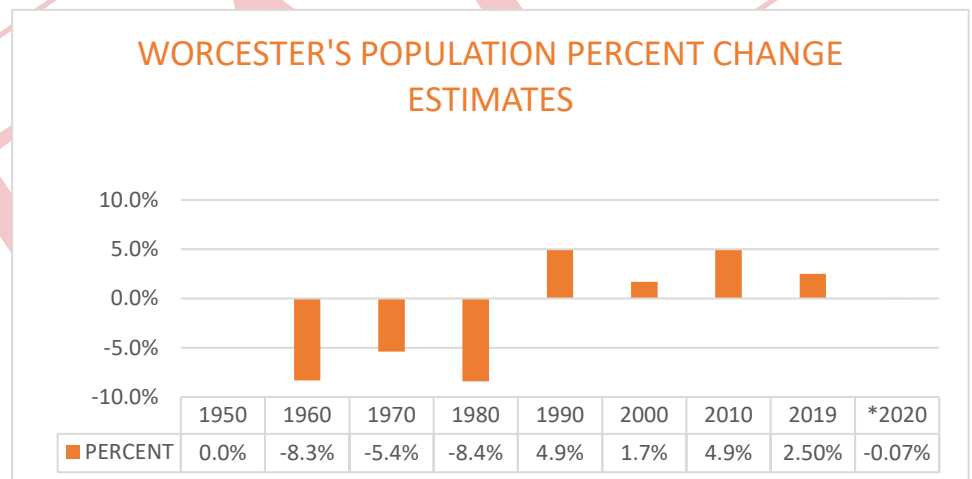
(Refer to Fig. 2 – 3, Appendix A)

POPULATION CHARACTERISTICS AND ENVIRONMENTAL JUSTICE COMMUNITIES

The population of Worcester peaked around 210,000 residents in 1950. By the 1980's the population steadily declined to a low of 161,799, mirroring the trend of other New England and Midwestern industrial cities in the post-industrial age. The population began to rebound reaching 169,759 persons by 1990. By 2020, the City's population had increased to 2.5% from 2010.



Source: Census Bureau 2010 and World Population Review 2020



Source: Census Bureau 2010 and World Population Review 2020

Other more recent demographic characteristics relevant to the current and future use of the City's open space system include the following:

- The chart below illustrates the importance of Worcester to proactively continue to plan, manage and serve a rapidly growing population with a demand for quality recreational spaces.

Worcester's Population Growth & Statistics Estimates, 2020	Worcester		Massachusetts		USA	
Total Population	185,301		7,029,917		331,449,281	
Square Miles (Census Bureau)	37.37		7,800.06		35,531,905	
Population Density Estimate 2020	4,959		901		88	
Population Change Since 2010	2.28%		5.31%		6.30%	
Population Male	90,797	49%	3,409,510	48.5%	163,073,046	49%
Population Female	94,504	51%	3,620,407	51.5%	168,376,235	51%
Median Age	34.7		40		38	

Source: Census Bureau 2010 & 2020 and World Population Review 2020

- Between **2010-2020**, Worcester had the second largest population in Massachusetts, Boston the first, and Springfield the third.
- Worcester Residents:**
 - 18.8%** under the age of 18-year-old.
 - 13.6%** above the age of 65-year-old.
 - 11.2%** persons with disabilities under the age of 65.
 - 20.0%** live in poverty.
 - \$ 48,139** Median household income (in 2019 dollars).
 - Between 2000-2010 the number of Worcester households making \$49,999 or less decreased by 13.9% and consequently households making \$50,000 or more increased by 40.6%.
(Source: The Research Bureau Worcester's demographic Trends 2010 Census).
 - 34.61%** language other than English (compared to 21.4% in MA).
 - (16%) Spanish, (8%) Indo-European Languages, (5.6%) Asian and Pacific Island Languages, and (5%) other languages.
(Source: The Research Bureau Worcester's demographic Trends 2010 Census & World Population Review 2021).
- Figure 2, Appendix A shows how there is a tendency of youth population (18 years and under) associated with areas of Environmental Justice: 40% or more of younger than 18 years of age live at North-east Great Brook Valley area. Also 30-40% of younger population lies at central corridor near I-190 and I-290.

The Massachusetts Executive Office of Energy and Environmental Affairs (EEA) defines Environmental Justice populations as neighborhoods (U.S. Census Bureau census block groups) that meet one or more of the following criteria:

- **Median annual household income** is at or below 65% of the statewide median income;
- **25%** or more of the residents are a minority;
- **25%** or more of the residents are foreign born; or
- **25%** or more of the residents are lacking English language proficiency.

The Grant Programs associated in an Environmental Justice Community are: PARC Grant, Urban and Community Forestry Challenges Grant (DCR) and Brownfields Site Assessment and Cleanup Funding Resources (MassDEP).

In Worcester, the Environmental Justice Community population is concentrated along the I-290 corridor and near the City Center and University Park areas. Another isolated critical community is found at the north-east part of the city. (For the purpose of this mapping analysis, Critical means that it satisfy the 3 criteria: Minority, Income and English language Isolation (Refer to Fig. 2, 2b, and 2c Appendix A).

EDUCATION ATTAINMENT

The number of adults aged 25 and older who have less than a high-school diploma has decreased by about 29%. There is an overall increase in the higher level of education as follows:

- **87.7%** in high school graduates or higher.
- **30.2%** in bachelor's degrees or higher. (2nd highest % of adults with bachelor's degree in New England).

Source: Census Bureau 2010

Categories of comparison	Worcester	Massachusetts
Living in same house 1 year & over, percent, 2007-2011	84%	87%
Foreign born persons, percent, 2007-2011	21%	15%
Language other than English spoken at home, percentage 5+, 2007-2011	34%	21%
High school graduate or higher, percent of persons age 25+, 2007-2011	84%	89%
Bachelor's degree or higher, percent of persons age 25+, 2007-2011	30%	39%

Source: quick facts census.gov

In terms of other population characteristics, here are some categories that compare current patterns of change between Worcester and Massachusetts:

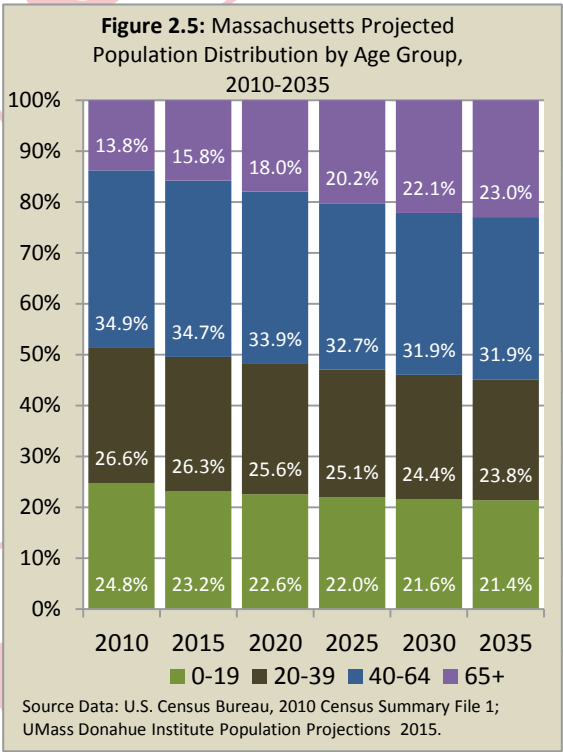
AGE

The average age in Worcester is 34 years of age.

Worcester has the third-highest population of 20-34-year olds of the major cities in New England (Boston and Providence being first and second. (Note: this population includes college students living on and off-campus residences). (Based on: The Research Bureau Worcester’s Demographic Trends 2010 Census).

The data below shows a common trend of elderly population increasing, much like other cities and municipalities in the state. This trend implies that there may be a greater demand for passive activities with trails/pathways that allow for contact with natural resources. The data also suggest a future need for ADA compliant accessibility and for multi-generational recreational opportunities that will allow an aging population with renewed focus on maintaining a high level of wellness to seek out City resources to support their efforts.

Massachusetts Population Projections by Age



Source: UMASS Donahue Institute, Long-term Population for Massachussets Regions and Municipaltpalities, 2015

RACIAL AND ETHNIC DIVERSITY

Worcester's diversity trends reflect forecasts for US population growth overall where the percentage of African Americans in the workforce will continue to increase as the United States continues to become more racially and ethnically diverse.

National census data predicts that by 2050 there will be no racial or ethnic majority in our country. Between 2000 and 2050 new immigrants and their children will account for 83% of the growth in the working-age population.

Since 2010, Worcester's racial breakdown has changed: number of people who identify themselves as white decreased by 5.57%. Depending on the source of data, minorities represent approximately 38-41% of Worcester's current population. In Worcester's Demographic Trends: 2010 Census, the Research Bureau found that the city's African American population increased by 77% during the first decade of the 21st Century. During the same period, the Latino population grew by 45% and the Asian population grew by 31%. As of 2010, the largest numbers of immigrants in Worcester are from Brazil, Vietnam and Ghana, followed by a Latin-American group consisting of El Salvador and Dominican Republic.

Between 2000 and 2010 the number of linguistically isolated households (with all members of the household 14yrs and over having some difficulty in speaking English) increased in Worcester: Highest increase was 68% for "other languages" and 26% for Spanish. There was also an increase in the number of people who speak "Less than Very Well" in English.

Among racial groups in the City, the unemployment rate is: 19% for American Indian and Alaska Natives, and 15.8% for Latino or Hispanic origin.

CITY INDUSTRIES

Worcester has a civilian labor force of 60.3% with a 5.6% unemployment rate. (Source World Population 2020).

In Worcester, business ownership within the minority population is double that of Massachusetts as depicted in the following chart: (Note: percentage calculated in 2007).

DIVERSITY IN BUSINESS OWNERSHIP

Type of Business Ownership	Worcester	MA
Total number of firms	11,799	596,790
Black-owned firms	7.00%	3.40%
American Indian- and Alaska Native-owned firms	F	0.40%
Asian-owned firms	10.30%	4.50%
Native Hawaiian and Other Pacific Islander-owned firms	F	0.00%
Hispanic-owned firms	6.40%	3.30%
Women-owned firms	27.80%	29.80%

(F is Fewer than 100 firms. Source: US Census Bureau State & County QuickFacts).

Worcester's historic unemployment trend illustrates that the average unemployment rate for Worcester has been higher than Massachusetts's state average as indicated in the graph below where the shaded area indicates the U.S. recession due to Covid-19:



Source: U.S. Bureau of Labor Statistics, Unemployment Rate in Worcester, MA-CT (NECTA) [WORC625UR], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/WORC625UR>, June 16, 2021.



City Hall Common

In comparison to the national level, Worcester has a greater portion of the following job categories: Education and Health Services, Manufacturing and “Other Services”. This so called “Other Services” include repair services, personal services, household services and works in philanthropic and non-profit organizations. (Source: US Bureau of Labor Statistics).

According to the Comprehensive Annual Financial Report (FY June 30, 2020) the City's principal employers, in descending order are:

Principal Employers	Type of Business	Employees	%
UMass Memorial Health Care, Inc.	Healthcare	11,491	10.85%
City of Worcester	Government and education	5,755	5.43%
UMass Medical School	Education	4,339	4.10%
Reliant Medical Group	Healthcare	2,681	2.53%
Saint Vincent Hospital	Healthcare	2,366	2.23%
The Hanover Insurance Group, Inc.	Insurance	1,800	1.70%
Saint Gobain Abrasives, Inc.	Abrasives manufacturer	1,500	1.42%
Seven Hills Foundation, Inc.	Health and human services	1,367	1.29%
Worcester Polytechnic School	Education	1,328	1.25%
College of Holy Cross	Education	1,147	1.08%
Fallon Health, Inc.	Healthcare	N/A	N/A
Polar Beverages	Bottling company	N/A	N/A
Quinsigamond Community College	Education	N/A	N/A
Simplex Grinnell	Communication Systems	N/A	N/A

Growth of the City's most prestigious educational institutions has positively impacted the economy through the expansion and construction of new research centers (UMass Medical, Massachusetts College of Pharmacy and Health Sciences, Worcester Polytechnic Institute and Worcester State University). This has subsequently brought growth in residential, retail & commercial, food & entertainment, business and cultural developments.

In 2016, the Worcester Cultural Coalition (WCC) and City of Worcester partnership contributed to attract 2.7 million in visitors to Worcester during 2016. This partnership sponsored cultural events that ranged from street festivals to openings of new galleries, film making and chamber concerts.

This helped contribute to the City's growing reputation in the following areas:

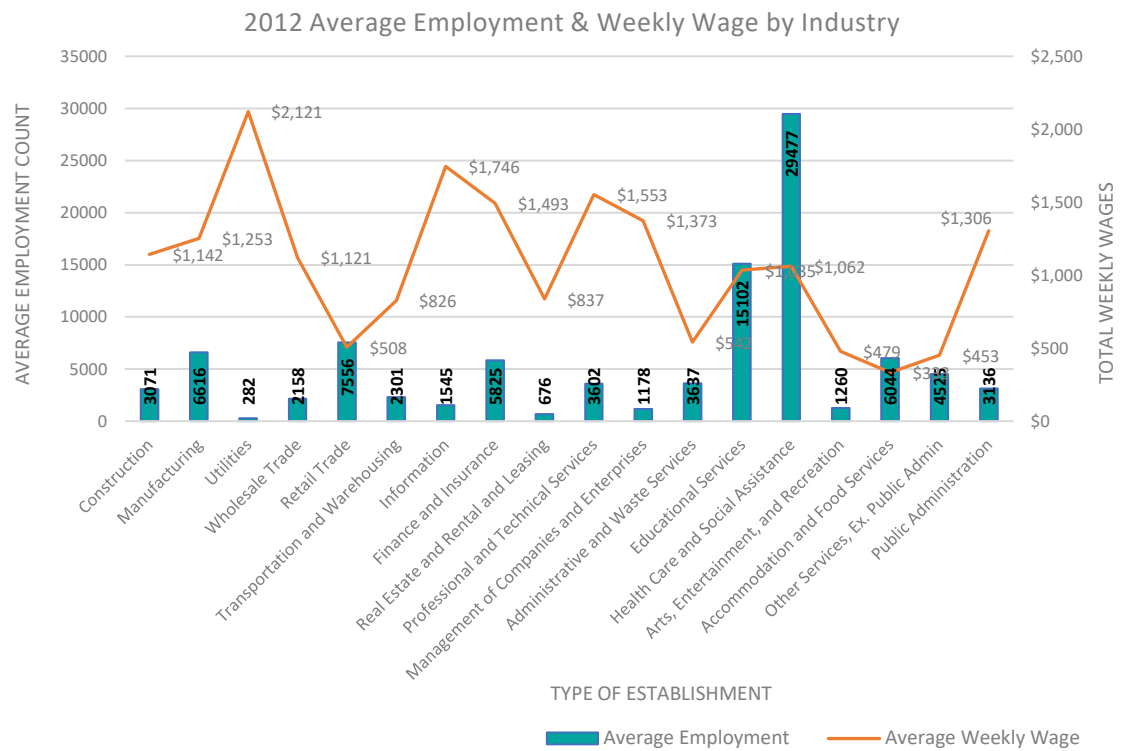
- #45 Best Cities for Outdoor Activities in the U.S., 2021 (Niche).
- #69 Most Diverse Cities in the U.S., 2021 (Niche).
- #26 Most Diverse Mid-size Cities in the U.S., 2021 (WalletHub).
- #14 Top 20 Cities for Housing Markets in the U.S., 2021 (USA Today).
- #22 Top Safest Cities in U.S., 2021 (WalletHub).
- #08 Top 10 Cities for Urban Gardening Profit Potential in the U.S., 2021 (Lawnstarter).
- #04 Safest Places to Live in the U.S., 2020-2021 (U.S. News & World Report).
- #13 Top 25 Best Places to Live on the East Coast, 2020-2021 (U.S. News & World Report).
- #68 Best Places to Live in the U.S., 2020-2021 (U.S. News & World Report).
- #91 Best Places to Retire in the U.S., 2020-2021 (U.S. News & World Report).
- #53 Top 100 Best Places to Live in the U.S., 2020 (Livability).
- #22 Top 25 Safest Cities in the U.S., 2020 (WalletHub).
- #107 Strongest-Performing Metropolitan Region in the U.S., 2020 (Milken Institute Org).
- #10 Top 10 Metro Areas Achieving Inclusive Economic Growth in the U.S., 2017 (Brookings Institute).
- #02 Best New England Cities & #33 Best U.S. Cities to start a business, 2016 (Worcester Business Journal & WalletHub).

New development projects such as Polar Park and the Blackstone Heritage Corridor Visitor Center, among others, will bring more tourists and new residents to the City that will be looking to explore its natural, cultural, and recreational resources.

The following graphs show 2012 statistics for types of industries in Worcester and their corresponding wages. The investment and popularity in healthcare industry may suggest the potential to consider open spaces as part of the tools and strategies to heal (Refer to recent research on outdoor public 'Healing Spaces' and the benefits of 'Sensory Gardens', etc.).



City view from Green Hill Park



HOUSING STUDY

According to a City of Worcester Housing Strategy prepared by the Executive Office of Economic Development and RKG Associates, Inc. (dated October 2012) approximately 3,600 new residential units were built in Worcester between 2000 and 2010 representing a 5.5% increase. According to the US Census Bureau and 2006-2010 American Community Survey, Worcester has added 8,307 housing units, an increase of 11.75%. The average size of households decreased by 1% to 2.38%.

(Source: Worcester Demographic Trends: February 2013 report).

The neighborhoods in the Green Hill and North Side (extreme northeastern corner of Worcester) experienced the highest growth in new residential units during that time. In those same ten years Great Brook, Greendale, Piedmont, Main South and Southwest neighborhoods of the City experienced the lowest percentage increase in housing development. These areas are geographically located along an urban corridor that traverses through Worcester City Center in a northeast to southwest direction. Worcester City' neighborhoods of Downtown East Side and Green Island achieved moderate growth rates of new housing. Other lower density, outlying areas of the City where land is still available were under more intense residential subdivision development pressure including the West Side, College Hill and Beaver Brook Neighborhoods.

From a planning perspective, City policy is focused on investments in the densely developed residential neighborhoods located in and near downtown.

D. GROWTH AND DEVELOPMENT PATTERNS

PATTERNS AND TRENDS

During the last cycle of intensive development, Worcester's pattern of residential expansion generally consisted of new projects in outlying areas rather than in-fill development within existing neighborhoods. The City's Planning Board approved many residential developments which consist of both multi and single-family developments of various sizes and geographic configurations. Many developments are now active again, after a dormancy period during the economic downturn between 2006 and 2010.

By being built in phases, impacts to the City's infrastructure, school system and the environment have been spread out over time, allowing the City the opportunity to implement needed infrastructure related improvements. As the economy begins to revive, previously approved and new subdivision plans will be put forward which will apply more pressure to the remaining open space in the city. (Refer to Fig. 2a - Population Change by Block -2000-2010).



Winter activities at City Hall Common

In recent years, economic development and planning initiatives have focused on developing distressed properties within the City's urban core and within other previously developed areas. (Refer to Fig.2 Environmental Justice Map by Youth Population).

Significant featured projects:

- 2 Main Street (former Worcester County Courthouse, developed by Trinity Financial).
- Saint Vincent Hospital Redevelopment
- Harding Green (culinary marketplace, retail space and housing units)
- South Worcester Industrial Park
- Massachusetts Biotech Park
- The Reactory: Biomanufacturing Park
- Hanover Theater Renovation
- Streetscape and Infrastructure Improvements
- Worcester Red Sox
- Blackstone Heritage Corridor Visitor Center
- Fidelity Bank Worcester Ice Center
- Holy Cross Hart Center Renovations
- Assumption College Academic Building
- Worcester Polytechnic Institute (WPI) Academic, Dorm Building
- Homewood Suites at Washington Square
- AC Marriott Hotel
- 145 Front at City Square
- 551 Main Street / Hanover Theater Expansion
- 20 Franklin Street (135,000 square foot mixed use space)
- WRTA Maintenance and Operations Center
- Worcester Common Garage Parking
- Hampton Inn & Suites
- Antonio's Pizza
- British Beer Company
- The Junction Shop Lofts
- The Voke Lofts
- The Edge at Union Station

A 2012 Housing Market Study recommends that the City of Worcester “develop a city-wide plan with specific action items for each distressed property (e.g., maintenance, redevelopment, selective demolition, community garden/open space, parking, etc.)”. The City Manager's Office has established five Neighborhood Revitalization Strategy Areas, each focused specifically on issues relative to housing, code enforcement, commercial storefront improvement and job training.

City planning policies and initiatives continue to be in sync with state and national planning policies that are focused on smart growth and transit-oriented development and on building a “greener” economy that is less reliant on the automobile.

Biotechnology continued during the 2010 to 2020 decade as an important economic development theme in the eastern portion of the City along Plantation and Belmont Streets. The UMASS/Memorial Medical School and Health Care System have also fueled significant growth and expansion to the Plantation Street vicinity as to the Belmont Street transportation corridor east of Worcester center. This highly educated new work force may be seeking for different recreation activities such as biking, hiking, and connections to conservation areas (as evidenced from the public survey results (See Appendix C Public Survey Results and Section 07 Analysis of Needs).

During the most recent decade, jobs in health care, education and social assistance increased by 20%. The City's colleges and universities have also aggressively built new facilities to house and to educate their student populations.

LONG-TERM DEVELOPMENT PATTERNS AND TRENDS

Nationally, there is a clear migration of residents from rural and suburban areas to more urban areas. In the northeast, the population of cities like Washington, New York and Boston will increase at more rapid rates compared to surrounding suburban areas and more distant rural areas. The Donahue Institute (University of Massachusetts) predicts that by 2030, the population of Boston will expand by 11.7% and Worcester by 6.7% while the total population of Massachusetts is expected to grow by a more modest 4.4%. Western Massachusetts and other rural parts of the state are expected to experience level growth in population or even modest losses in population.

At the rate of population growth referenced above, Worcester's population by 2030 will be approaching 200,000. Based on current City policies and current development trends, we are likely to see the following:

- An emphasis on the development of residential uses within downtown and close to downtown areas. With limited open space, there will be further pressure to provide meaningful recreational opportunities.
- Continued expansion into the few remaining undeveloped areas of the City, primarily to the north and to the west. With fewer park properties within these outlying areas, there will be additional pressure to establish new parks, playgrounds and recreational facilities that serve these geographic locations.
- Continued redevelopment of underused and environmentally stressed commercial and industrial properties within downtown and near to downtown areas is a priority. This type of development creates jobs and economic development. It will be important to expand open space and recreation facilities within these geographic areas in order to remain competitive and in order to accommodate the needs of workers who may live within new center city residential offerings or commute to work via car, bus, train or bicycle.



City Hall Common Center

- The Donahue Institute findings also reinforce the notion of an aging population with the population of those aged 65 and older increasing by more than 50% and those aged 19 and younger shrinking by about 12% by 2030. To this end, open space and recreational amenities must continue to be adjusted and refined in order to meet these changing age demographics.

GREY INFRASTRUCTURE | TRANSPORTATION SYSTEM

(Refer to Fig. 1 Regional Context Map, in the Appendix A.)

Interstates I-190 and I-290 bisect the City in an north/south orientation and provide a regional transportation link throughout Central Massachusetts and connections to Interstates I-495 and I-90 (Massachusetts Turnpike). Route 146 was completely reconstructed and expanded and directly connects downtown Worcester to Providence, Rhode Island today. Route 9 bisects the City in an east/west orientation and provides a highly developed commercial linkage to Boston and Amherst. However, Route 9 is currently undergoing major renovation efforts. Two other major east-west routes (Routes 20 and 122) and three north-south highways (Routes 12, 70 and 122A) pass through Worcester.

Locally, the City has over 2,000 streets listed in its Official Street directory. About 90 miles of Worcester streets are considered private and are unpaved “dirt roads”. Their origin can be traced back to 1925 (before sub-division control laws regulated land Development). Anyone owning property in Worcester could record a plan dividing their property into new lots and proposed streets. The City of Worcester has two programs to consider the improvement of these unpaved roads: “Private Street Conversion” and “Private Street Betterment”.

In order to continue satisfying increased transportation demand associated with economic development, while complying with the statutory requirements of the Clean Air Act, the City must continue to invest in its infrastructural transportation system to make it more efficient.

Two of these major investments in Worcester have been the MBTA and the City’s Airport. (Please refer to A. Regional Context of this section for a description of these regional transportation systems).

Some examples of local transportation diversification include:

- Enhancement of the public transit system (bus, commuter rail, and Intermodal Transportation Center).
- Ride-sharing (through parking policies, park-and-ride lots, and a transportation management association).
- Streetscape improvements and trail creation to encourage walking and biking.



Blackstone Bikeway

To meet these challenges, many improvements have recently been completed or are currently being constructed or planned.

- Construction of a new parking garage at Union Station.
- Construction of a new WRTA Transportation Hub adjacent to Union Station.
- System-wide improvements to WRTA facilities and transportation routes.
- Construction of a new WRTA Bus Maintenance Facility to be located on a former “brownfield” property of Quinsigamond Avenue.
- Reconstruction of Route 9 and the Route 9 Bridge at Lake Quinsigamond.
- Continued expansion of the Blackstone River Bikeway within central and southeastern sections of the City.
- Streetscape improvements promoting walking and biking in the Canal District (recently completed) and downtown (soon to begin construction).

Bike lanes are being used in a limited capacity as alternate modes of transportation. However there is potential to encourage ridership and develop a more connected bike transportation network on the existing streets of the city.

PUBLIC OR PRIVATE WATER SUPPLY SYSTEMS

(Refer to Fig. 1 Regional Context Map, in the Appendix A. for watershed locations).

Ten local water reservoir sources provide the city with over 27 million gallons of drinkable water per day. In addition, the City has emergency connections supplies that include wells and reservoirs: Coal Mine Brook Well on Lake Ave North in Worcester and Shrewsbury Well off Holden Street in Shrewsbury, Wachusett Reservoir and Quabbin Aqueduct.

Not all of the City’s residents are served by the public water supply system. A small area around Mountain Street West is supplied with water purchased from the Town of Holden. This area includes Mountain Street West from #157 to the Holden line (including Stratton Hill Apartments), Maravista Road, Maranook Road, Wendover Road, and the first 500 feet of Lanesboro Road Relocated.

Water treatment presently meets all federal and state requirements set forth by the Safe Drinking Water Act. (Refer to 2013 Water Quality Report, www.worcesterma.gov).

MUNICIPAL SEWER SERVICES / INDIVIDUAL SEPTIC SYSTEMS

The City of Worcester is an active member of the Upper Blackstone Clean Water District (UBCW). Worcester is the most upstream community among the following cities and towns forming a portion of the UBCW. The other communities include the towns of Auburn, Cherry Valley Sewer District, Holden, Millbury, Rutland, and West Boylston.



Institute Park



Worcester water treatment facility at Holden Reservoir No. 2



Waterway at Beaver Brook Park



Gateway Park



WPI Roof top with planted trays that collect rainwater. Featured in "Princeton Review Names WPI One of Nation's Greenest Schools" <http://www.wpi.edu/news/20101/greenest.html>



Meadow Trail at the Ecotarium. Image courtesy of Ecotarium. <http://www.ecotarium.org/outdoor-explorations/nature-trails>



WWI Memorial at Memorial Grove, Green Hill Park

Approximately 82% of the waste received at the regional wastewater treatment facility (located in the Greenwood Neighborhood) is from residents of the City of Worcester. The facility also processes industrial wastewater and has enacted an industrial pretreatment program.

During the past decade the City of Worcester, through the Department of Public Works, has spent tens of millions of dollars upgrading the regional wastewater treatment facility and upgrading piped sewer and storm water systems to meet or exceed current state regulations. At present, less than 10% of residential properties maintain individual private on-site septic facilities. There are plans to reduce the number of disconnected septic systems as the municipal wastewater treatment system is increased for size.

GREEN INFRASTRUCTURE

In urban environments, green infrastructure (or blue-green infrastructure) is a landscape approach that aims to integrate stormwater management and multi-functional space design as part of a sustainable open space framework.

Its importance lies in the need to resolve long term urban issues of water demand and supply, problems with periods of flood and drought in cities, climate change adaptations and creative and efficient use and management of open space. This type of infrastructure includes interventions in streetscapes and pocket parks to multiple parcels of conservation areas within different watersheds.

The City of Worcester has an array of open spaces: 61 park properties (approximately 1,400 acres of park land) and more than 100 conservation (state, city and private) properties that can make a significant contribution to the green infrastructure and to connections to land and natural water resources. Furthermore, by allowing public access to these water and land resources, residents and visitors can become informed of their larger significance at a regional level.

RECENT PARKS AND OPEN SPACE ACCOMPLISHMENTS

The City continues to invest heavily in its schools, parks and open space system, open space protection and in programs designed to serve an aging population, city youth and economically disadvantaged residents.

Since completion of the 2006 Open Space and Recreation Plan, Worcester made great strides in environmental protection, historic preservation, and economic development such as:

- Protection of dozens of new open space properties
- Protection of historical resources and assets
- Completion of more than a dozen open space specific Master Plans.
- Capital improvements to dozens of parks, playgrounds and open space properties scattered throughout the City of Worcester with a total investment since 2000 over \$100M.
- Formation or strengthening of partnerships with other land stewards including the Greater Worcester Land Trust and Mass Audubon.
- Partnerships with citizen groups, local colleges and universities to undertake meaningful improvements within the City parks and open space system.
- Establishment of new partnerships to provide new recreational and sports programming opportunities for the City's youth.
- Continued implementation of pedestrian and bicycle improvements in conjunction with transportation improvement projects throughout the City.



Elm Park

Over the past 20 years, the City has enacted a number of regulatory water supply protection measures including establishing Water Resources Protection Overlay District and Floodplain Overlay Districts (that limit types of uses or regulate construction standards in these sensitive areas), enacting Wetland Protection Ordinance and Regulations in 1990 (enforced by the Conservation Commission), and Earth Removal Ordinance.

Land use Boards and Commissions of the City often consider landscaping and open space allocation when reviewing large-scale projects.

The City has also established priorities for future watershed and wellhead protection area land acquisitions. With multiple land purchases achieved during the past five years for this purpose.



Summer event at University Park



Cascade Park

ENVIRONMENTAL INVENTORY AND ANALYSIS

A. GEOLOGY, SOILS AND TOPOGRAPHY

(Refer to Appendix A: Mapping, Soils and Geological Features Map, Figure 4).

Central Massachusetts was subjected to the rigorous physical alterations of the Wisconsin stage of Pleistocene glaciation. Local landforms are characteristic of glacial transport and deposition. The ice sheet advanced in a southerly direction, and eroded land differentially in folded belts of rocks.

Predominantly sedimentary in origin, the rocks in the area have been subjected to intense deformation by the pressures and temperatures accompanying igneous intrusion and erosion by fluvial and glacial activities. For the most part, the rocks are now metamorphic in nature.

The common bedrock units in the area are:

- Worcester Phyllite (Carboniferous sedimentary rock - Paleozoic Era)
- Oakdale Quartzite (Carboniferous sedimentary rock - Paleozoic Era)
- Paxton Quartz Schist (Carboniferous sedimentary rock - Paleozoic Era)
- Oxford Schist (Carboniferous sedimentary rock - Paleozoic Era)
- Ayer Granite (Late carboniferous igneous rock - Triassic Era)

The phyllite and quartzite in the Worcester area typically underlie the lower, flat tracts of land. The granite is concentrated in prominent hilly areas of the City. Gneiss and schist occupy the higher lands east and west of the City proper downtown. However, not all aspects of the landscape form can be correlated with rock types.

Quinsigamond Valley appears to follow some line of structural weakness in the underlying bedrock. Outwash lies high in the valley, with flood plain deposits following southward along the City's eastern border to an area of ground moraine and recessional moraine in the southeast corner of the City.

Glacial geology has left the central portion of the City overlaid with outwash deposits and a large area of glacial moraine, surrounded to the northwest by numerous drumlins and recessional moraine and to the southwest by glacial moraine and a single esker.

1. SOILS

Based on the findings of the U.S. Soil Conservation Service's Soil Survey, Worcester is made up of the following main group of soils:

- **41%** Paxton Urban land complex.
- **31%** Paxton, Woodbridge, or Canton fine sandy loams, moderately well drained but stony.
- **10%** Chatfield-Hollis rock outcrop complex.
- **18%** Well drained to excessively drained soils.

The **Paxton-Urban Land** complex consists of soils which are very deep, nearly level to moderately steep that are well drained on uplands. The dominant soils in the complex have slow to very slow permeability in the substratum and firm glacial till at a depth of about two feet. The dominant minor soils in this complex are somewhat poorly drained soils.

The **Paxton-Woodbridge-Canton** complex consists of very deep to steep soils that are well drained and moderately well drained on uplands. The complex consists of upland hills and ridges dissected by many small drainage ways. The soils formed in glacial till. The permeability of the soils is slow to very slow in the substratum with the exception of the Canton soils which permeate rapidly. Slope, the seasonal high-water table, a frost action potential, and firm substratum are the major limitations for development.

The **Chatfield-Hollis** complex is characterized by moderately deep and shallow, gently sloping to moderately steep soils that are well-drained or somewhat excessively drained on uplands. The complex consists of hills and ridges with many bedrock exposures throughout. The soils formed in glacial till. Bedrock is at a depth of 20 to 40 inches. The permeability of the soils is moderate or moderately rapid.

The soils complexes noted above are only general classifications, their suitability for development is dependent on soil features and the specific type and scale of use being considered. Soil suitability for individual sewage disposal systems is generally not a determining factor as over 90% of the City is served by public sewers. Current regulated soil factors include but are not limited to restrictive features such as wetness, slope, and susceptibility to flooding. (Refer to Appendix A: Mapping, Soils and Geological Features Map, Figure 4).

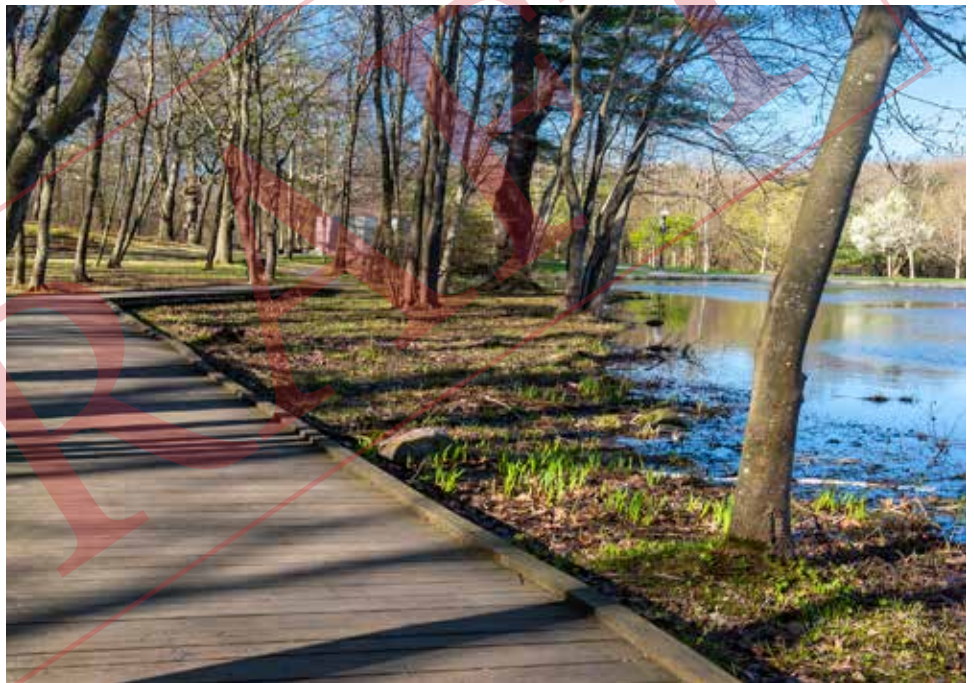
2. TOPOGRAPHY

Worcester is made up of the following topographic regions: Worcester Lowland; Central Upland of Massachusetts; East Side Hills; and Quinsigamond Valley.

The Worcester Lowlands occupies part of a basin in the center of the City. This basin is bordered by considerably higher ground on both the east and west sides. The flattest and lowest parts of this area lie at an elevation of about 500 feet above sea level.

The western border of the Worcester Lowlands is marked by an abrupt rise in elevation. This rise in land is the eastern boundary of the Central Upland of Massachusetts. The Central Uplands stretch west to the Connecticut River Valley. The elevations of these broad-summitted hills lie in the 1,000-foot range, rising above narrow lowlands with streams and ponds in the 700-800-foot range. The Worcester Airport rests on one of these hills at an elevation of about 1,000 feet.

At the opposite border of the Worcester Lowlands are the East Side Hills. The summits of these hills lie in the 700-foot range. These hills include the Burncoat Street area, Green Hill Park, the Oak Hill District, Union Hill and Packachoag Hill areas. Traveling further east is the Quinsigamond Valley, the eastern border of the City. Lake Quinsigamond occupies the central part of this valley. The elevations along the lake's shores are the lowest in the City. The lake is one of three natural water bodies in the City, the others being Indian Lake and Bell Pond.



Duck Pond at Green Hill Park

B. LANDSCAPE CHARACTER

“Urban open space is present in a variety of forms, parks and play-grounds for active recreation, tree-lined streets which provide shade and color, and undeveloped land in its natural state. To a great extent, Worcester’s City form is a result of its natural environment. Topogra-phy, waterways and valleys helped shape the built form of the City. Valleys and waterways were locations for industry. The radial circula-tion pattern followed the hilly topography. Residential neighborhoods developed on the hills around workplaces. The multiple hills allowed an evolution of many neighborhoods, each with a clear identity, tradi-tion, and relationship to the natural environment”. (Worcester Master Plan, 1987).

The following resources are examples of Worcester’s unique landscape character:

- **Crow Hill Drumlin:** This area was identified for acquisition in the 1987 open space plan. In 1999, the greater Worcester land trust acquired 27.9 acres of the 42-acre property. The hill has fine white hardpan (clay) which was mined for a brick factory formerly located on the site. The exposed clay escarpment is a significant geologic formation and the summit provides a 360-degree panoramic view of the city.
- **Green Hill Park:** This city-owned park represents a landscape which has been greatly transformed over the past several centuries, from wilderness to farmland, to a country estate and finally, to a unique multiple-use public park. Development of the land was carefully planned and managed by the Green family for over a century. The park offers unique vistas and panoramas from its hilltop as well as areas of mature woodlands, open meadows and lawns. The city has acquired additional adjacent open space in an effort to protect, enhance and expand this largest of all Worcester park and open space asset.
- **God’s Acre:** Owned by the Worcester Airport Commission, this area is under a conservation restriction which prohibits further development in the area. God’s Acre provides several walking paths through wooded swamp and wetland forest. Prominent vegetation in the upland areas includes mountain laurel, evergreens, red oaks, American chestnut, and stands of hickory and red maple trees.



Crow Hill Drumlin, Worcester, a drumlin is a small oval hill or ridge of compacted sediment deposited and shaped by a glacier. Drumlins have one steep and one gentle slope along their longest axis, which is parallel to the direction of the glacier’s movement. The steepest slope faces the direction from which the glacier originated, and the gentler slope faces the direction in which the glacier was advancing. (Image courtesy of Robert Lingner, on flicker.com)



Green Hill Park



Deed Rock at God’s Acre
(Image courtesy of Greater Worcester Land Trust)



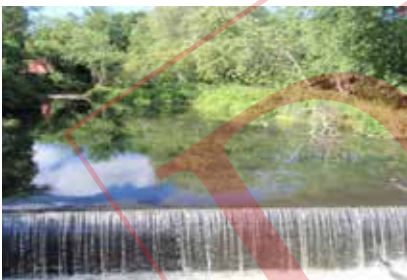
Lake Quinsigamond
(Image courtesy of panoramio.com)



Blackstone Valley from King Philip's
rock, (Image courtesy of Wikipedia)



Blackstone Valley Map
(Image courtesy of Wikipedia)



Quinsigamond Pond Dam and Middle
River upstream. (Image courtesy of
Michael J Lauria)

- **Lake Quinsigamond:** Located at Worcester's lowest elevation, the Lake consists of a deep northern basin of 475 acres and a shallow 297-acre southern basin known as Flint Pond. Lake Quinsigamond's primary outlet is through Irish Dam, forming the Quinsigamond River. The distinct physiognomy of the Lake's narrow, steep-sided northern portion is reminiscent of a Norwegian fjord. Because of this, the lake deserves special recognition as a unique physical form of the regional landscape.
- **Blackstone Valley:** Approximately 99 percent of Worcester lies within the Blackstone River Basin, which is divided into several sub-basins. The River's headwaters flow throughout the City's wetlands and streams and portions of the City have been included in the congressionally designated Blackstone River Valley National Heritage Corridor. The Blackstone River Bikeway (and multi-use trail) is contained within the corridor and a visitor's center is located in the North Quinsigamond Village neighborhood of the City. (Refer to Appendix A: Mapping, Unique Features Map, Figure 5).

C. WATER RESOURCES

1. RIVERS AND STREAMS

Despite its urban character, Worcester boasts many watercourses of significance to the region (Refer to Water Resource Map, Figure 6). The Blackstone River's headwaters flow from the north and western portions of the City through Beaver Brook and the Middle River and the waters of Lake Quinsigamond flow into the Blackstone River from the southeastern portion of the City through the Town of Grafton.

- **Blackstone River:** The headwaters of the Blackstone River are located within the City limits. The tributaries to the headwaters include Mill Brook, Beaver Brook, Tatnuck Brook, and Middle River.

"The hardest working river, the most thoroughly harnessed to the mill wheels of labor in the United States and probably the world, is the Blackstone." (Winthrop Packard, 1909).

The official headwaters are located at Beaver and Weasel Brooks. Much of the natural runoff feeding the northern section of the river has been cut off due to the installation of a public sewer system and other utilities. The river is subject to extensive urban runoff and wet weather overflows which are discussed further in this section.

- **Middle River:** Formed at the confluence of Tatnuck Brook, Beaver Brook and Kettle Brook in the central western portion of the City known as Webster Square, the Middle River and its surrounding wetlands have a history of flooding, which has caused the Worcester DPW to pursue numerous projects in recent years, to improve conditions.
- **Mill Brook Sewer and Flood Control Conduits:** Another Blackstone River tributary, the Mill Brook, once an open canal (Blackstone Canal) and later a sewer system and flood control conduit, was walled and arched in the mid 1800's. There is a possibility that certain sections of the canal could be opened for historic purposes and for viewing the unique granite structure of the canal. In order for this to happen, problems associated with low water levels, hazardous sediments and sewer flows during wet weather would need to be addressed. The potential for day lighting sections of the river have been discussed for decades and at this time there are no definitive plans for this to happen.
- **Coal Mine and Poor Farm Brooks:** The Coal Mine and Poor Farm Brooks lie within the North Quinsigamond Aquifer Recharge Area and have been included within the City's Watershed Protection Overlay District in order to protect the critical recharge area for the City's Shrewsbury and Coal Mine Brook Wells. Although groundwater investigations for potential water supplies have been the focus in the area, the value of these surface water resources has been the target at past open space acquisitions.



Blackstone River and Canal Heritage State Park, near Mass./R.I. state line. (Image courtesy of Wikipedia)



End point of Mill Brook and Middle River. The entrance point of the Blackstone Canal. The remains of an old railroad track bridge with overgrown vegetation. (Image courtesy of <http://www.weatherforecast365.com/usa/>)

2. GREAT PONDS AND LAKES

Great Ponds are defined and protected by the Massachusetts Wetlands Protection Act (MGL Ch. 91) and the Massachusetts Department of Environmental Protection's Waterways Program which controls activities on specific water ways for the purpose of the betterment of the waterway and the public good. Great Ponds listed by the Department of Environmental Protection are indicated with images below and include Green Hill Pond, Flint Pond, Indian Lake, and Lake Quinsigamond.



Lake Quinsigamond, (Image courtesy of Doug Stone, Northborough, MA.)



Coal Mine Brooks, (Image courtesy of Greater Worcester Land Trust)



Green Hill Pond



Flint Pond (Image courtesy of Steve, member of <http://www.meetup.com/paddling-33/>)

3. WATER QUALITY

The water quality of some of the City's watersheds has been adversely impacted by marginal residential development practices and intense commercial and industrial development. Blackstone River was at one point called the hardest working river in the nation. Then it became the victim of the industrial revolution through deposition of untreated sewage and industrial wastes in the 19th and 20th centuries. The passage and implementation of anti-pollution laws, and the establishment of municipal wastewater treatment plants have improved the quality of the river and the City's other water bodies in recent years, but more must still be done.

For example, in the Tatnuck Brook Watershed, Patches Reservoir has been impacted by conversion of nearby seasonal homes without the installation of public sewers as well as stormwater runoff.

Additionally, upstream impacts to water quality from development and maintenance practices at the municipal airport have negatively impacted the water body. The City's Health Department has begun a systematic sampling program for the pond to attempt to identify further sources of degradation. The City's Conservation Commission and Recreation Department jointly filed for Clean Lakes funding in cooperation with the Coes-Patches Watershed Association to implement watershed best management practices. In 1997 a Comprehensive Management Plan was completed for Patches Reservoir by GZA GeoEnvironmental, Inc. through joint funding provided by the Department of Environmental Management's Lakes and Ponds Program and the City of Worcester. The water quality of the reservoir exhibited problems that are typical of urban water bodies, such as sedimentation deposition and eutrophication, but the overall quality of water is still in fair condition. This plan includes a variety of watershed and in-reservoir techniques to preserve and slowly increase the water quality of Patches Reservoir.

While most point sources of pollution have been systematically eliminated by sewer and ISDS upgrades, Lake Quinsigamond is also adversely impacted by poorly controlled non-point source runoff. The lakeshore is heavily developed by residential as well as commercial land uses, which have led to a mesotrophic state in the lake and a eutrophic state in Flint Pond downstream. In 2002 report specifies Flint Pond as listed on the Massachusetts 303d list for Turbidity due to high phosphorus loadings. Lake Quinsigamond is also listed on the Massachusetts 303d list for nuisance aquatic plants, organic enrichment and low dissolved oxygen due to high phosphorus loadings. The Lake Quinsigamond Watershed Association keeps an updated list of information related to the lake's status and other information related to BMPs that can improve the conditions of the lake at: <http://www.lqwa.org/>.

The Blackstone River Watershed Water Quality Assessment Report (2003-2007) states the following: "monitor for the presence of invasive non-native aquatic vegetation and determine the extent of the infestation to prevent

spreading of invasive aquatic plants. Once the extent of the problem is determined and control practices are exercised, vigilant monitoring needs to be practiced to guard against infestations in unaffected areas, including downstream from the site, and to ensure that managed areas stay in check.” There are also strong recommendations to test for “episodes of instream toxicity to *P. promelas* in the Blackstone River just downstream from the new Millbury Street Bridge in Worcester by the EPA if possible”.

Water quality of all municipal bathing beaches is certified annually by the Health Department. Nuisance vegetation, oily sheens, and foul odors have been viewed as indicators of water quality degradation in some areas of the ponds, but for the most part, water quality remains good and public beaches continue to operate during the summer swimming season.

During 2012-13, the City of Worcester undertook a study at Salisbury Pond to determine the quantity of sediment located on the pond bottom. In recent years, siltation has adversely impacted recreational pursuits, water quality and habitat conditions. With dramatically improved stormwater management facilities now in place within much of the upstream watershed, the City is interested in restoring the health of the pond to levels not seen in decades.

4. WATER SUPPLY

The City of Worcester currently owns several surface water reservoirs for public water supply use within the Nashua River Basin and the Blackstone River Basin. (Refer to Appendix A Regional Map, Figure 1 and Section 03 Public or Private Water Supply System). Water sources in the Nashua River Basin which serve the Worcester public water supply are the Quinapoxet Reservoir, the Pine Hill Reservoir, and the Kendall Reservoir.

Water sources in the Blackstone River Basin which serve the public water supply are the Holden Reservoir #2, Holden Reservoir #1, Kettlebrook Reservoirs #1, #2, #3, and #4, and Lynde Brook Reservoir. All of these surface water reservoirs and over 99% of the associated watershed acreage are located outside of the City of Worcester in the towns of Princeton, Rutland, Paxton, Leicester, and Holden. The City owns approximately 25% of the watershed lands surrounding surface.

In the past, the City has applied for increased water withdrawals from its existing Blackstone Basin sources as required by the Massachusetts Department of Environmental Protection’s Water Management Act. These applications were denied. An application for increased withdrawals for the Nashua River Basin was submitted in 1994. In June 2007, a Final Permit Decision settled past appeals for the Blackstone Basin and approved a new Nashua River Basin permit application, with Special Permit Conditions such as a limit to unaccounted water not to exceed 15% of overall water use, and a maximum Residential Per Capita Water Use not to exceed 80 gallons per day.



Blackstone River



Blackstone River Basin

Additional sources of water include two gravel-packed wells which are currently used as emergency supply sources. The Shrewsbury Well is located in the Town of Shrewsbury west of Lake Quinsigamond, while the Quinsigamond or Coal Mine Brook Well is located in Worcester on the shore of Lake Quinsigamond. Emergency water supplies are also available from the Massachusetts Water Resources Authority via connections to Wachusett Reservoir and the Quabbin Aqueduct.

Table 4-1 Reservoir Capacities and Surface Areas

High Service	Capacity (‘000Gals.)	Surface Water (Acres)	Low Service	Capacity (‘000Gals.)	Surface Water (Acres)
Lynde Brook	717,422	131.8	Holden Res. #1	720,319	129.8
Kettlebrook #1	19,307	11.5	Holden Res. #2	257,398	52.6
Kettlebrook #2	127,310	30.8	Kendall Res.	792,163	175
Kettlebrook #3	152,306	37.4	Pine Hill Res.	2,970,966	345.3
Kettlebrook #4	513,746	118.6	Quinapoxet Res.	1,100,000	280
Total	1,530,091	330.1	Total	5,840,846	982.7

Table 4-2 Water Supply Protection Organizational Framework

Responsible Party	Water Supply Protection Responsibilities
Department of Public Works & Parks	Water Treatment and Distribution
	Water Quality Monitoring and Watershed Patrols
	Site Plan Review
	Road Salting and Sanitary Surveys
	Wetlands Protection Regulations
Planning Board	Consider projects under jurisdiction of Zoning Ordinance and Subdivision Control Law and Regulations, including projects within Water Resources Overlay Protection District.
Zoning Board of Appeals	Consider projects under jurisdiction of Zoning Ordinance, including earth removal and placement of fill.
Conservation Commission	Consider projects under jurisdiction of Wetlands Protection Act, Ordinance and Regulations; Open Space Planning / Preservation.
Fire Department	Review Storage of Flammable, Hazardous, or Toxic Materials and Site Plan Review.
Departments of Inspectional Services	Issue Building Permits; Conduct Sanitary Surveys & Title V (Septic Systems); Monitor Water Quality; Site Plan Review and Advise Land Use Boards; Issue Permits for Earth Removal, Enforce Floodplain Regulations; and more.
Division of Planning and Regulatory Services	Review and make recommendations regarding significant land use issues before Boards under jurisdiction of Subdivision Regulations, Zoning Ordinance and Wetlands Protections Act / Ordinance, and more.

5. USAGE OF RECREATIONAL WATER BODIES

Worcester's recreational water bodies provide aesthetic as well as recreational value to the residents of the City. Please refer to Section 05: Inventory of Lands of Conservation & Recreation and Appendix D (Site Assessment Forms for individual parks) for a comprehensive list of recreational water uses and locations. It is important to expand on the public access points on water bodies throughout the City so that a larger population can enjoy them.

The following table illustrates current (2020) pools, splash pads, and beaches that are open for public swimming and recreational water-based:

Table 4-3 State and City Beaches & Pools Open for Public recreation

State Pools (DCR)	
Bennett Field Pool	1268 Main Street
Shine Pool	184 Providence Street
State Beaches (DCR)	
Regatta Point	10 North Lake Avenue
Quinsigamond State Lake	287 Lake Avenue
City Pools / Spray Parks	
Crompton Park Pool	50 Canton Street
Greenwood / Spray Park	14 Forsberg Street
Cristoforo Colombo / East Spray Park	180 Shewsbury Street
City Beaches	
Bell Pond Beach	238 Belmont Street
Coes Pond Beach	180 Mill Street
Indian Lake Beach	20 Clason Road
Shore Park Beach	115 Mill Street

Other ponds used for recreation include Curtis Pond, Cider Mill Pond, Green Hill Pond, Leesville Pond, Patch Reservoir, Salisbury Pond, Meres Ponds at Elm Park, Thayer's Reservoir / Cook Pond.



Coes Pond Beach



Elm Park looking south, circa 2011
(Image courtesy of Telegram & Gazette File Photo)



Elm Park



Shore Park



Veteran's Memorial Pond at Green Hill Park

6. FLOOD HAZARD AREAS

The Federal Emergency Management Agency's (FEMA) revision of the Flood Insurance Rate Map for the City of Worcester became effective with the most recent updates of 2011. With the exception of the reduction of the 100-year floodplain in the area of Beaver Brook, the floodplain largely stayed the same.

Table 4-4 Flood Hazard Elevations

Flood Hazard Location	Area	100 Year Flood Elevations (ft.)
Blackstone River	Corporate Limits	415.5
	Mill Brook Conduit	444
Middle River	Confluence of Blackstone River	444
	Conrail (Reaches 1-5)	460.5
St. John's Cemetery	Reaches 5 - 7	460.5
	Confluence with Curtis Pond	476
Beaver Brook	Beaver Brook	476
	Maywood Street	482.9
Kettle Brook (East)	Curtis Pond	476.3
	Leesville Pond	484
Kettle Brook (West)	Corporate Limits, Reach 1	520.8
	Reach 8	572
	Reach 9	600
	Reach 10	672
Tatnuck Brook	Confluence with Beaver Brook	482
	Patches Pond Res.	541
	Mower Street Bridge	592
	Before Dam	592
	Corporate Limits	656
Crompton Park	Quinsigamond Avenue	449
Coes Park	Coes Park	501
	Coes Pond	501
	Coes Pond Beach	508



Broad Meadow Brook
(Image courtesy of Greater Worcester Land Trust)

7. WETLANDS

The topography of Worcester's landscape was formed by faulting and folding of rock formations and the retreating of glaciers which formed deposits of glacial till in the form of drumlins, facing a southeast direction. These drumlins drain to the lower elevations and form streams with related vegetated wetlands, swamps, marshes, and wet meadows such as the Broad Meadow Brook area, the Newton Square Peat Bog, the Jamesville "Pond", and the Blackstone River Valley.

8. VERNAL POOLS

According to the Massachusetts Natural Heritage and Endangered Species Program, vernal pools are temporary bodies of freshwater that provide crucial habitat to vertebrates and invertebrate species of wildlife. The invertebrates constitute a rich source of food for amphibian larvae, and also attract various species of birds, mammals and reptiles to vernal pools. To be protected by the Massachusetts Wetlands Protection Act, a pool must be certified by the Natural Heritage Program and must be located within a wetland resource area as defined in the Act. According to the Massachusetts Division of Fisheries and Wildlife, Worcester has 18 Certified Vernal Pools (as of January 2010. For locations of these please refer to Area Receptors Map, Figure 6b in Appendix A Mapping.

Refer to website: http://www.mass.gov/dfwele/dfw/nhesp/vernal_pools/vernal_pool_data.htm
See also: http://www.mass.gov/dfwele/dfw/nhesp/species_info/vprs_home.htm

9. AQUIFER RECHARGE AREAS

To protect potential new sources and the existing Shrewsbury and Quinsigamond Wells, the City adopted a Water Resources Protection Overlay District in April 1991. This addition to the Zoning Ordinance protects the quality and quantity of water supplying these wells by regulating land uses in the district overlying the aquifer and its recharge areas. Certain uses deemed to be a threat to groundwater are either prohibited or require issuance of a Special Permit depending on the nature of the use and the designation of the district area. The Zone GP-2 overlies the primary recharge area and includes the cone of depression and zone of contribution of the wells. Land uses are most strictly regulated in this region. Zone GP-3 covers areas that are up-gradient of the primary recharge areas, but which drain by surface water runoff and, to a lesser degree groundwater flow, to the primary recharge areas. Maintaining ample open space in both zones is key to protecting the integrity of the aquifer which supplies water to both Worcester and Shrewsbury.

D. ECO-REGIONS OF WORCESTER

According to the BioMap2 report, and The Nature Conservancy's Mass Program, there are three identified eco-regions in Worcester:
(Source: Published in 2012 by Mass Department of Fish and Game through the Division of Fisheries and Wildlife's NHESP, and the Nature Conservancy's Mass Program).

- Lower Worcester Plateau
- Southern New England Coastal Plains and Hills
- The Worcester Plateau



Broad Meadow Brook boardwalk across wetlands. (Image courtesy of Dawn Fine: <http://dawnandjeffsblog.blogspot.com/2012/06/broad-meadow-brookwalk.html>).

These three areas are distinguished by their unique topography and natural habitats:

- Open hills with central and transition hardwoods.
- Plains with few low hills comprising of central hardwoods, transition hardwoods, and some elm-ash-red maple, red and white pine.
- Hilly with high Monadnocks (residual rocky masses that resisted erosion and stand isolated in a level area) and mountains with dominant forest types: transition hardwoods, some northern hardwoods and forest wetlands are common and surface waters are for the most part acidic.

Under this Biomap2 classification, the City has a Core Habitat of 1,481 acres and a Core Habitat Protected of 552 acres, which equates to around 38%.

Core Habitats are important areas that “promote long-term persistence of rare species, other Species of Conservation Concern, exemplary natural communities, and intact ecosystems.”

Of these two BioMap2 components, the Core Habitat has:









- One Aquatic Core or ecosystems made up of intact river corridors important for aquatic Species of Conservation Concern.
- Twelve Species of Conservation Concern Cores consisting of two birds, two amphibians, one insect and, three plants.

For second component, the Critical Natural Landscape, defined as “intact landscapes in Massachusetts that are able to support ecological processes and disturbance regimes, and a wide array of species and habitats over a long period of time”, Worcester has 1 Aquatic Core Buffer consisting of 186 acres around Quinsigamond Lake region. None of this land is protected as of 2012.



Blackstone Gateway Park

Table 4-5 Species of Conservation Concern, Priority and Exemplary Natural Communities, and other Elements of Biodiversity in Worcester.

INSECTS	
Orange Swallow Moth (SC)	
AMPHIBIANS	
Marbled Salamander (T)	
Four-Toed Salamander (Not-listed SWAP)	
BIRDS	
Grasshopper Sparrow (T)	
Eastern Whip-poor-will (SC)	
PLANTS	
Smooth Rock-cress (SC)	
Hairy Wild Rye (E)	
Vasey's Pondweed (E)	

E = Endangered
T = Threatened
SC = Special Concern

1. RARE, THREATENED AND ENDANGERED SPECIES

There are 432 native plant and animal species listed as Endangered, Threatened or of Special Concern under the Massachusetts Endangered Species Act (MESA). The selection criteria to list these species are based on how rare species are, whether there are foreseen threats to survival and detrimental effects on population trends. MESA's list is maintained by the Massachusetts Natural Heritage and Endangered Species Program (NHESP) and has identified estimated a total of 22 "Rare, Threatened and Endangered Species" in Worcester.

According to Massachusetts Natural Heritage Program Staff, the wood turtle (*Clemmys insculpta*), a "special concern" species, has been identified in the Lake Quinsigamond resource area. Directly north of Lake Quinsigamond, the Wachusett Reservoir provides habitat for the Bald Eagle, also protected under the Migratory Bird Treaty Act, and no longer an endangered species listed by the U.S. Fish and Wildlife Service.



Purple Milkweed
Asclepias purpurascens



Peregrine Falcon
Falco peregrinus



Broad Waterleaf
Hydrophyllum canadense



Indiana Bat
Myotis sodalis



Upland Sandpiper
Bartramia longicauda

Table 4-6 Rare, Threatened and Endangered Species in Worcester

Scientific Name	Common Name	Taxonomic Group	MESA status	Most Recent Observed
Adder's Tongue Fern	Ophioglossum pusillum	VP	T	1933
Broad Waterleaf	Hydrophyllum canadense	VP	E	1934
Climbing Fern	Lygodium palmatum	VP	SC	1879
Climbing Fumitory	Adlumia fungosa	VP	SC	1938
Cow Path Tiger Beetle	Cicindela purpurea	BE	SC	Historic
Eastern Box Turtle	Terrapene carolina	RE	SC	1992
Eastern Meadowlark	Sturnella magna	BI	SC	2014
Grasshopper Sparrow	Ammodramus savannarum	BI	T	2009
Hairy Beard-tongue	Penstemon hirsutus	VP	E	1890
Hairy Wild Rye	Elymus villosus	VP	E	2009
Imperial Moth	Eacles imperialis	BM	T	Historic
Indiana Myotis	Myotis sodalis	MA	E	1937
Marbled Salamander	Ambystoma opacum	AM	T	2012
Orange Sallow Moth	Pyrrhia aurantiago	BM	SC	2012
Pale Green Orchid	Platanthera flava var. herbiola	VP	T	1939
Peregrine Falcon	Falco peregrinus	BI	T	2019
Purple Milkweed	Asclepias purpurascens	VP	E	1879
Shore Sedge	Carex lenticularis	VP	T	1933
Smooth Rock-cress	Boechera laevigata	VP	SC	2012
Upland Sandpiper	Bartramia longicauda	BI	E	1960
Vasey's Pondweed	Potamogeton vaseyi	VP	E	2015
Water Shrew	Sorex palustris	MA	SC	1880s

<https://www.mass.gov/info-details/rare-species-viewer>

E = Endangered
T = Threatened
SC = Special Concern

VP = Vascular Plant

BE= Beetle

RE = Reptile

BI= Bird

BM= Butterfly/Moth

MA= Mammal

AM= Amphibian

Source (as of 2020): Mass gov. : Natural Heritage & Endangered Species Program (<https://www.mass.gov/info-details/rare-species-viewer>)

2. AREAS OF CRITICAL ENVIRONMENTAL CONCERN

There are currently no Areas of Critical Environmental Concern (ACEC) designated by the Executive Office of Environmental Affairs (EOEA). In December, 1992 the City of Worcester attempted to have a 6,766 acre portion of the Lake Quinsigamond Aquifer Resource Area designated as an ACEC by the EOEA. The area nominated included a portion of the City of Worcester, and the Towns of Shrewsbury, Boylston, Grafton, West Boylston and Millbury.

According to DEP water management data, the present yield from the proposed ACEC exceeded nine million gallons per day. The area is also the principal source of recharge to an extensive surface water complex of lakes and ponds and vegetated wetlands. In addition, the area is situated in the headwaters of the Blackstone River and is a regionally important wildlife migratory corridor.

However, in a 1993 letter to the City Manager, the Secretary of Environmental Affairs declined to review the area for designation because “the high level of development and urbanization located within the area reduces the number of highly significant resource components and fragments the integrity of critical ecological relationships necessary for ACEC designation.”

E. FOREST LAND



Asian Longhorned Beetle (ALB).
(Image courtesy of US Forestry Services)



Trees felled within the Cascades West property due to ALB infestation

The City of Worcester's naturally forested areas represent a zone of transition between hardwoods, white pine and hemlock, as identified by the Society of American Foresters. In this region, beech, birch, and maple overlap with the oaks and hickories that dominate the zone to the south. As a result, most of New England's native hardwood species occur here. Oaks and hickories, along with white pine, paper birch and aspen, usually occupy the hilltops and sandy areas. Northern hardwood and hemlock stands predominate on lower slopes. White pine is dominant in abandoned fields and sandy sites.

It is important to note that in 2008, an invasion of Asian Long-Horn Beetle ALB (*Anoplophora glabripennis*) was discovered in Worcester. This is a destructive pest of hardwood trees that affects both healthy trees and nursery stock, causing great environmental and economic damage. Some of the host trees include but are not limited to maple species including Boxelder and Norway red, silver and sugar maples. Other preferred hosts are birches, Ohio buckeye, elms, horse-chestnut and willows.

Occasional to rare hosts include ashes, European mountain ash, London plane tree, Mimosa and Poplars. (Refer to Appendix A Fig. 6a for Map showing geographical ALB impacts on city trees).

Efforts since the initial outbreak have been made by the City of Worcester and other governmental agencies (USDA, DCR, Worcester County Horticultural Society at Tower Hill Botanic Garden and Worcester Tree Initiative) to disseminate information, on how to identify, prevent the spread, control, and destroy these pests. In addition, the Worcester Tree Initiative has partnered with other corporations to continue to reforest urban Worcester. They have planted over 35,000 trees, exceeding the goal set in 2013. (Source: <http://www.treeworcester.org/>)

The following properties are protected Forest Land under the Conservation Commission's ownership:

- **Perkins Farm** 80 acres of young and mature woodlands. The site provides hiking through birches, quaking aspens, white aspen, oak, and chestnut trees. Several types of warblers and towhees can be seen during certain times of the year. In the fall, the hillside of the site provides an overlook to Lake Quinsigamond. The City has a management plan for Perkins Farm with the assistance of the Massachusetts Audubon Society. This now includes trails, beautification, and educational projects, as well as trailhead and trail signs. It was the last working farm in the City, now a wonderful woodland island and has protected ecosystems such as vernal pools, and abundant plant species.
- **Dawson Road** 37 acre forested parcel that the City of Worcester acquired through a tax foreclosure. The land is under the jurisdiction of the Conservation Commission who provided a local match to fund the completion of a Forest Stewardship Plan in December 1999 through a DCR grant. The parcel is densely forested, contains a small portion of wetland area and serves as habitat to a variety of wildlife. The parcel is marked for passive recreation purposes. The area is in fair to good condition; there are a variety of non-native species invading the parcel but are currently at a phase where they can be controlled before indigenous species are displaced.
- **Donker Farm** 33 plus acre traditional family subsistence farm, with a flock of sheep, geese and chickens.
- **Cascades East** 30.86 acre forested open space parcel that abuts the Cascades, which is a 36 acre preserved open space area. This parcel is a vital addition to the Cascades greenway corridor located in Holden and Worcester. The parcel is owned by the Conservation Commission with a Conservation Restriction held by the Greater Worcester Land Trust (GWLT) whom financed a majority of the required matching funds granted through DCS. This parcel is located within the Tatnuck Brook Watershed, which is a tributary to Patches Reservoir. Preserving this parcel will allow for infiltration and natural filtration of ground water and prevent a future increase of sedimentation deposit.



View of Cascades at Worcester



South Worcester Community Garden

- **Institutional Clark University's Hadwen Arboretum**, houses a variety of trees from all over the world, planted during the 1800's. It is advertised in the universities website as "6.4 acres of unspoiled woodland green space" Many of these trees, including Tulips and Sassafras can still be viewed at the Arboretum. This resource is open to the public and has trails an provides areas for hiking, picnicking, a community garden and even dog-walking.
- **City of Worcester Green Hill Park Farm**, open year round and is located within Green Hill Park, is home to various gentle farm animals. It also supports the Worcester Police Mounted Police horses.

F. URBAN AGRICULTURE

The City of Worcester possesses an active Agricultural & Silvicultural network including the following:



South Worcester Community Garden

- I. Over 40 community gardens on public and private lands, engaging over 300 residents in active cultivation.
- II. A non-profit partner, the regional environmental council, as informal coordinator of the system of community gardens.
- III. A seasonal farmer's market that uses 2 city park sites for a three-day-a-week program.
- IV. Two private properties under the state chapter 61 forestry program.
- V. Two private properties under the state chapter 61a agricultural program.
- VI. The Hadwen Arboretum, managed by Clark University, at the intersection of May and Lovell Streets.
- VII. A municipal department of public works program that converts leaves and yard waste into compost which is then made available to residents free of charge.
- VIII. A city forestry department under the direction of a municipal forester that manages hope cemetery as an arboretum, and over 700 miles of street trees.
- IX. A city reservoir system with over 3000 acres of protected lands under the management of a municipal forester specifically tasked to those lands.
- X. Private properties and GWLT forest properties under the State Forest Stewardship Management Plan.



South Worcester Community Garden

Some examples GWLT forest properties under the State Forest Stewardship Management Plan include:

- **Bovenzi Conservation Park Property**, 110 acres, between Battle Street, West Mountain Street, I-90 and Ararat Street..
- **Cascades West**, 8 acres, listed as 300 Mower Street, Mblu 47/021/0000B.
- **Cook's Pond**, 33 acres, under the state forest management plan.
- **Cook's Woods**, 61 acres, also known as Brigham Road/Dawson Road Forest, has a 1999 State Forest Stewardship Plan.
- **Donker Farm**, 24 acres, between Tory Fort Lane, Moreland Green Drive and Beaconsfield Road.
- **Nick's Woods Property**, 65 acres, between Rte. 122A, the Holden Line, the P&W railroad tracks and Smith Lane.

This network of agriculture and silviculture, while not integrated, is an important element of Worcester's open spaces and substantially contributes to the general quality of life.

Agriculturally, the City of Worcester benefits from a Community Garden Program that provides recreation, community development, and locally grown produce. The Community Gardens are a public-private-partnership and receive assistance from the Regional Environmental Council, the Department of Public Works and Parks, and the Worcester Housing Authority. The Farmer's Market, a private venture, is supported by the Parks Department of the Department of Public Works and makes locally grown farm products available to City residents.

There are two private Chapter 61A (private farmland category, described further in Section 05, Inventory of Lands.

Silviculturally, the City of Worcester benefits from a properties, rounding out this considerable forest cover that consists of street trees, specimen trees, unmanaged woodland, and managed forest. The urban forest includes some substantial tracts of forest that would more typically be associated with a rural landscape. Worcester's forests are a collection of publicly and privately managed lots.

The City employs a forestry division within the Department of Public Works & Parks and is executing a multi-year management plan for the City's street trees. The City of Worcester, through the Department of Public Works & Parks, owns and manages thousands of acres of forested water shed land that are adjacent to the City.

In 2005 the City of Worcester reorganized its municipal operations. The Parks Department, which includes parks, recreation, cemeteries and forestry, have all been merged under the single leadership of the Commis-



Streetscapes at Elm Park



Elm Park

sioner of the Department of Public Works. As a result of this merging of functions, the City anticipates improved efficient management of its agriculture and silviculture. There is also a better possibility for integration and coordination of the private and public agricultural and silvicultural efforts in the City.

G. TREES: ENVIRONMENTAL, ECONOMIC AND SOCIAL BENEFITS

The streets of Worcester are lacking street trees. There is an opportunity to plant more shade trees on the streets of the city.

The 'Report on the Status of Street Trees in Worcester MA' (October 2008), illustrates major concentrations of maple species per area of the City. This report estimates that for every \$1 the City invested in urban reforestation, it received approximately \$1.69 in benefits.

(Source: <http://www.mass.gov/eea/docs/dcr/stewardship/forestry/urban/docs/worcester-report.pdf>)

The City of Worcester has updated their policy relative to the protection of public trees. It mandates that planting and maintenance of shade trees: to plant, cut, trim, remove, spray or otherwise treat Public Shade Trees shall require prior written approval from the tree warden.

Since Asian Longhorn Beetle infestation and the severe ice storm of December 2008 the regulation states that the DPW & Parks shall maintain a list of species of trees that are suitable for planting along streets and open space properties.

1. BENEFITS OF SHADE TREES

Environmental importance of trees

Albedo effect (heat regulating) and stormwater regulating mechanisms capture, store and release water, reduce pollution, and improve air quality.

Social and Economic Importance of trees

Increase aesthetics and thus increase property value. Provides recreational value and therefore can decrease municipal budget because it is a long-term investment.

Macro-economic picture

According to research conducted by the NRPA (National Recreation and Parks Association) the benefits of environmental resources such as trees and parkland are economically quantifiable. Here is an example relating to Recreation Air Quality Benefits of Trees:

- \$0.29 per tree per year based on Quantifying Urban Forest Structure, Function, and Value: the Chicago Urban Forest Climate



University Park

Project 1997. (50.8M trees provided \$9.2M air pollution benefit in 1991 = \$0.18 cents/tree, or \$0.29 by 2011).

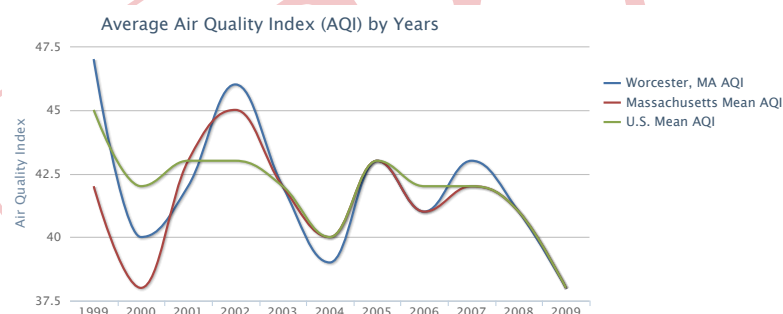
- \$0.51 per tree per year based on Houston's Regional Forest. USDA Forest Service & Texas Forest Service study, Oct. 2005. Converted to per tree and 2011 values.
- \$94.91 per acre of forest per year, based on Coder, Dr. Kim D., "Identified Benefits of Community Trees and Forests", University of Georgia, October, 1996. (One hectare forest equals \$136/day value of air pollution control. Converted to acre/year).

2. Recreation Water Quality Benefits of Trees

- \$58.00 per acre per year based on "Assessing the Benefits and Costs of the Urban Forest". Journal of Arboriculture 18(5): September 1992. John F. Dwyer, E. Gregory McPherson, Herbert W. Schroeder, and Rowan Rowntree. Est. \$.18 runoff savings per tree = \$0.29/tree in 2011, or \$58/acre at 200 trees/acre.
- \$142.13 per tree per year based on Economic Benefits of the Park and Recreation System of Mecklenburg County NC. Trust for Public Lands. 2010. Considered impervious % of parklands vs. no parks, 96% pervious parkland surfaces, 42 inches/rain/year, and 0.0344 stormwater treatment cost per cubic foot. Converted to per acre value.
- \$747.71 per acre per year based on Identified Benefits of Community Trees and Forests. Dr. Rim Coder, University of GA, 1996. \$336,000 savings per 1 sq.mi. = 640 acres or \$525 / acre. Converted to 2011 values. (Refer to the NRPA website and tree calculator resource at <https://www.iisecure.com/nrpa/proragis/EcoBenefit.asp>).

H. AIR QUALITY

Worcester's air quality index is a median value which considers the most hazardous air pollutants. The Worcester, MA air quality index is 4% less than the Massachusetts average and equal to the national average. See graph below:



(Source: <http://www.usa.com/worcester-ma-air-quality.htm>). The information on this graph is based on the air quality database from the U.S. Environmental Protection Agency (EPA).



Trail at Lake Park



Blackstone Valley Park

The City's pollution index is the sum of the most hazardous air pollutants displayed in pounds. The reports for Worcester County pollution index is greater than the Massachusetts average and much greater than the national average.

I. FISHERIES AND WILDLIFE

1. INVENTORY

The Division of Fisheries and Wildlife regularly stocks Lake Quinsigamond and Coes Pond with rainbow and brown trout. Lake Quinsigamond is stocked with trout on seven to ten dates during the spring (March through May) and on one or two dates in the fall (October). The Lake is also stocked with discard brood stock Atlantic salmon. These salmon are excess brood stock available on occasion from the co-operative State and Federal programs to restore Atlantic salmon to the Merrimack and Connecticut Rivers. Also, Northern Pike are stocked in Lake Quinsigamond and Indian Lake. These lakes are stocked with pike every three to four years. The City of Worcester currently does not stock any of its ponds or lakes.

According to the April 1982 DCR Watershed Management Plan for Lake Quinsigamond and Flint Pond, the following fish species are known to reproduce within the warm and cool water fisheries of Lake Quinsigamond: Black crappie, brown bullhead, largemouth bass, pumpkin-seed sunfish, white perch, yellow perch, bluegill, sunfish, carp, chain pickerel, smallmouth, bass, white sucker, banded killifish, rainbow smelt, eastern brook trout.

Lake Quinsigamond holds the current state record for common carp (42 lbs. in 1988) and held previous records for both northern pike and tiger muskellunge. Coal Mine Brook has recently been designated as a cold-water fishery by the Massachusetts Division of Fisheries and Wildlife. In addition to a diverse fisheries population, the less populated sections of the City provide habitat for deer, fox, raccoons, coyotes and occasionally moose and bear.

2. WILDLIFE CORRIDORS

Wildlife corridors are defined as narrow strips of land that differs, usually in terms of dominant vegetation, from the surrounding area. They serve as traveling avenues for wildlife species between two similar yet fragmented habitat areas and provide important sources of food and cover for many species.

Depending on the specific management goals, corridors can be developed in a variety of ways including natural re-vegetation, establishment of tree, shrub, and/or herbaceous cover, fence row establishment through a plowed field, or establishing a buffer along streams or roadsides. The main purpose in establishing a corridor is to connect two or more areas of habitat while also

providing a variety of food and shelter. The habitat types being connected may include grasslands, wetlands, woods, or old fields.

Management objectives should be prioritized and be specific to target species, while maximizing the potential use by other wildlife species. The more variety provided, the greater the number of species that will use the corridor. Research studies show a great number of songbirds, game birds, small mammals, and other species of wildlife use corridors as a regular part of their life cycles. By providing well-placed and managed corridors, the wildlife on private lands can be greatly enhanced for wildlife use.

Advantages of providing corridors for wildlife:

- Increase movement between isolated populations.
 - Increase genetic variability.
 - Increase food availability for a variety of wildlife species.
 - Provide escape cover from predators and shelter during bad weather.
 - Provide habitat variety for species requiring various cover types.
 - Establishes “greenbelts” in urban areas for recreation, aesthetics, improved land value, and other benefits.
 - Can decrease heating and cooling costs when used as windbreaks.
- (Source: Wildlife Corridors Indiana Division of Fish & Wildlife, 2004).

In Worcester there are two important Wildlife or Natural Corridors:

- John H. Chafee Blackstone River Valley National Heritage Corridor.
- Broad Meadow Brook Wildlife Sanctuary and Conservation Center.

The Blackstone River Valley National Heritage Corridor covers over 500 square miles, hosting a rich array of natural resources which are evident in its rivers and tributaries, wetlands and rocky outcroppings, and forests and fields. It lies within the watershed of the Blackstone River that runs from Worcester, Massachusetts to Providence, Rhode Island.

The Blackstone River is the most significant natural resource in the region, linking two states and 24 communities by a natural system with a national story. It was once harnessed by more than 30 dams over its 46-mile length. Over time, these impoundments created marsh and wetlands that are now an integral part of the region's natural ecosystem.

State parks and forests also protect significant areas of both historic and natural resources. A developing system of trails and the Blackstone Bike-way will provide important connections to natural areas in the future. A list of recorded species can be found in here: <http://www.nps.gov/blac/nature-science/upload/NRIListedSpecies.pdf>

Under the Section 22 Planning Assistance to the States Program and the Coastal America Initiative, the Corps of Engineers was recently requested by the States of Massachusetts and Rhode Island with the support of the Blackstone River Valley National Heritage Corridor Commission to conduct



Camp Street Community Garden



Blackstone Gateway Park



Region 1: Leicester-Worcester map from Natural Resources Inventory and Assessment 1998 report (Image courtesy of Blackstone River Valley National Heritage Corridor Commission).

an investigation into the feasibility of restoring anadromous fish (chad and salmon) to the Blackstone River watershed through assessment of both spawning and nursery areas as well as water quality and quantity. Additionally, the Massachusetts Division of Fisheries and Wildlife is very interested and active in waterfowl habitat restoration along the Blackstone River. Identification and mapping of all potential sites for potential habitat restoration and dam restoration was added to the project's scope of work.

Broad Meadow Brook Wildlife Sanctuary and Conservation Center is the largest urban wildlife sanctuary in New England, consisting of 272 acres of oak woods, fields, old pasture, streams, marsh and swamp for wildlife habitat and nature education to encouraging preservation and conservation of the natural world. There are species of approximately 155 birds, 67 types of butterflies. Fox, coyotes, deer, minx and muskrats are also present. Broad Meadow Wildlife Sanctuary is a fire adapted plant community, of both upland and wetland species.

(Source: http://www.massaudubon.org/Nature_Connection/Sanctuaries/Broad_Meadow/index.php).

J. SCENIC RESOURCES & UNIQUE ENVIRONMENTS

1. SCENIC LANDSCAPES

The following are primary examples of Worcester's natural, cultural, and scenic resources which do not fall into the Historical Preservation Initiative classification described by Massachusetts Department of Conservation and Recreation (DCR) but have been listed under the "Natural Resources Inventory and Assessment" carried out by the Blackstone River Valley National Heritage Corridor Commission (Listing of Valley Sites, by John H. Chafee, February 1998) and are considered Scenic Resources / Unique Environmental Resources by the citizens of Worcester.

- Broad Meadow Brook Wildlife Sanctuary:** As previously mentioned, the Massachusetts Audubon Society manages 272 acres of scenic land with a trail network for hiking. Broad Meadow Brook is owned by a consortium comprised of the City of Worcester Conservation Commission, the New England Power Company, and the Audubon Society itself. Outdoor classrooms and programs are run throughout the year, with a strong emphasis on reaching to those who are underserved by environmental organizations elsewhere. The Sanctuary also offers a variety of classes for adults and children in the identification of flora and fauna.
- Coal Mine Brook:** The old Worcester Coal Mine, and last remaining smelt run in New England, is located on Plantation Street in the eastern central portion of the City. During the early 1800's, the coal was mined and sent by rail to Lake Quinsigamond, where it was then shipped to

southern portions of the Blackstone Valley. The mine shaft opening has collapsed; however, the coal is still visible. The nearby brook (Coal Mine Brook) is a trout and smelt spawning run and has recently been designated as a cold-water fishery by the Massachusetts Division of Fisheries and Wildlife.

- **The Cascade Green Belt:** Located in the northwestern section of Worcester, and the neighboring Towns of Holden, Leicester and Paxton, this site is comprised of approximately 300 acres of woods owned by Worcester Department of Public Works & Parks, Worcester Public Schools and the Greater Worcester Land Trust. It contains two waterfalls dropping 108 feet from bedrock escarpment, large boulders, and a mature hardwood forest. There are several trails in Worcester and Holden which the public may access for hiking, picnicking, exploring wildlife and vegetation. Among the wildlife in the Green Belt are: the giant pileated woodpecker, turkeys, owls, deer, and salamanders. There are also mountain laurels and silver beech. A new addition to this greenbelt is the recently purchased Cascading Waters which is situated across Cataract Street from the falls of Cascades East.
- **Crow Hill:** A 42.1 acres parcel located off Plantation Street at the terminus of Clarendon Street. Crow Hill provides a 360-degree view of the Blackstone Valley, and it is adjacent to the New England Science Center EcoTarium. The City of Worcester Conservation Commission has obtained ownership of 27.9 acres of the parcel through funding made available by the Greater Worcester Land Trust who have placed a conservation restriction on the parcel. A grant application is pending through the EOE, DCS Land and Water Conservation funds for the remaining 14.2 acres. The parcel is forested and contains approximately two acres of wetlands surrounding a small pond.
- **Beaver Brook Park:** The brook was partially daylighted in 2008.
- **Blackstone River Corridor and Middle River Greenway:** Efforts are being carried out to clean the water ways that run through the Blackstone River Corridor.
- **Cider Mill Pond:** This 43 acre property is the former site of a cider press in Worcester. It features an ornamental pond plantings, a retired City of Worcester Reservoir, a red pine stand, a cart road, and a brook flowing across the site. A small portion of the property is also home of a memorial to former neighborhood resident Dr. Robert Goddard, the father of American rocketry. The memorial stands at the corner of Apricot and Goddard Memorial Drive. The property hosts a section of the Tetasset Ridge Trail that spans the west side of the City. The main trail follows a stream and brings you past two artificial ponds brimming with spotted touch-me-nots.



Crow Hill (Image courtesy of Greater Worcester Land Trust)



Blackstone Gateway Park and Blackstone River Corridor



Regattas on Lake Quinsigamond
(Image courtesy of Quinsigamond
Rowing Association)

- **Lake Quinsigamond:** A large lake dammed for recreation, and home to the longest skull boat race in the country is held here.
- **Salisbury Park:** Home to the historical landmark known as Bancroft Tower, and the property holds some of the most beautiful views of Worcester. It is located atop Prospect Hill on the northwestern side of the City. The summit has a 360-degree view of the City, greatly enhanced by a climb to the lookout tower (currently closed, but opened by permit for special occasions). A locator map in the stone walkway helps to identify the distant hills.

2. CULTURAL AND HISTORIC AREAS

Local Historic Districts

- **Massachusetts Avenue Historic District:** Listed as both a National Register and local historic district, is located near Salisbury Park. It is characterized by a variety of mid-19th century residential architectural styles.
- **Montvale Historic District:** This is a broader interpretation of the Montvale National Register District established in 1978. It is bordered by Park Avenue, Salisbury Street and Forest Street, and the Massachusetts Avenue Historic District is located to the South. A residential area, most of the homes in the Montvale District were built in the late Victorian and Greek revival traditions of the first quarter of the 20th century.
- **Crown Hill Local Historic District:** On March 12, 2013, City Council ordained City's third and largest Local Historic District in the downtown area roughly along and within Pleasant, Irving, Austin and Newbury streets. The District will promote preservation of the neighborhood's general character, historic resources and architectural features threatened by ongoing changes and development. The proposed district represents some of the City's best remaining examples of mid and late 19th century architecture.



View of the former Historic Fire building at Elm Park

Historic Parks

- **Elm Park:** Originally called "New Common", the original 27 acres of Elm Park were purchased in 1854. From 1874 to 1884 the basic plan for the park was put in place; pools, walks, and bridges were established for passive recreation pursuits. In 1888, Newton Hill was purchased as an addition to the park, yet has remained as a separate "rustic" unit. In 1910, the Olmsted Brothers landscape architecture firm was hired by the City with an emphasis on playground planning. In 1970, the park was designated as a National Historic Landmark and a complete renovation was accomplished in the mid-1970's and 2010's.

- Blackstone Gateway Park:** Historical resources identified in the Technical Feasibility Study and Implementation Strategy for the Heritage State Park include the Blackstone Canal, Quinsigamond Mill Complex, U.S. Steel Buildings, and remnants of a set of historical engineering structures, including the Quinsigamond Dam, former Mill Pond and associated waterways. Blackstone Gateway Park was designated as the future site of the Blackstone Canal Visitor's Center prior to burning down. This interpretative facility has been built and is in operation to promote tourism and to house State and educational uses. DCR has converted the abutting property to park land taken together these resources have the potential to graphically emphasize the importance of natural/geographic determinants in the development of the area. The Blackstone Bikeway runs into this historic landscape.
- Cider Mill Pond:** Was once the home of Solomon Parsons and is both historically and naturally significant. It was the location where the pre-Civil War underground railroad took passengers to hide in Mr. Parson's home on their way north. Species of the original landscaped red cedar, Japanese yew, Rosa floribunda, bittersweet, and forsythia can still be viewed. The City formed a partnership with the Greater Worcester Land Trust to purchase approximately 33 acres of this site for parkland for presentation.
- Institute Park:** Close to downtown and adjacent to Worcester Polytechnic Institute, this park was originally field and pasture, then donated by the Honorable Stephen Salisbury III in 1887 for parkland, to supply a green space for the students and citizens of Worcester. The park has a Master Plan and has completed the renovations of the Sneiderman Pavilion, and the Levenson Concert Stage, which both hosts concerts throughout the summer.
- Worcester Common:** Dating back to 1669, Worcester Common is the oldest public open space in the City. As the backdrop and foreground for the amazing City Hall (Ca. 1898) it is the focal point of community life and a major downtown destination. Scattered across its 4+ acres are a series of historic monuments, old cemetery, and a series of pathways, plazas, seating areas and landscape elements. Events are frequently conducted on the Common and seasonal events include concerts, farmers markets, food trucks, ice skating and a holiday light festival.

A WWII Memorial was recently constructed at the center of the Common and it includes a commemorative fountain, walkway, granite obelisks and other site features celebrating the contributions of the thousands of Worcester residents who served or contributed to the war-time effort.



Blackstone Gateway Park



Institute Park



WWI Memoria at Green Hill Park

- **Green Hill Park:** Encompassing nearly 500 acres, Green Hill Park is the City's largest open space expanse. It is located at the second highest elevation in the City (Worcester Airport is at a higher elevation) and it includes a wide range of passive and active recreational facilities and large tracts of woodlands, wetlands and streams. Green Hill Park is of regional and statewide significance and it dates to 1906 when the Green Family left their former estate to the City of Worcester for the establishment of a public park. Amenities include an 18 hole golf course, historic picnic shelter (listed on the National Register of Historic Places), playing fields, skatepark, handball courts, Massachusetts State Vietnam Veterans Memorial, Green Hill Farm, and a myriad of hiking trails and other typical urban park elements.

In 2020 the WWI Memorial was re-constructed to honor Worcester residents who served and contributed to the war-time effort. The newly designed memorial is composed of approximately 400 solid weathering steel posts that stand 20 feet tall – each representing a Worcester service person killed in the hostilities. The posts stand together in an embracing formation, and collectively provide a place for contemplation and enjoyment of an expansive view toward Bear Brook, the Commonwealth of Massachusetts, and the Statewide Vietnam Veterans Memorial in the distance.



Coes Park

- **Coes Park:** Has a unique accessible playground and a relocated historic tavern on the property.

The Stearns Tavern contains community space and a beautiful café operated by the Seven Hills Foundation, an long-established organization focused on bringing meaningful opportunity to people with special needs. A perfect complement to a new, fully accessible children's playground that opened in 2019. Combined with other work involving a reconstructed dam, expanded parking area, and planned boardwalk and trail system, Coes Park has become a key neighborhood gathering place and park destination for residents from across the City.

3. EVALUATION OF KNOWN THREATS TO HISTORIC RESOURCES

Many of the City's historic resources are directly or indirectly threatened by development pressures and shifts in the economy and development patterns. A number of historic resources may be at risk by neglect, development forces or other threats. At risk resources include mill complexes and associated mill housing and community service buildings, individual or isolated structures. Some examples are the historic Packachoag spring site from one of the three Nipmuc Villages in what is now of College Street o the Auburn line.

Mill complexes in Worcester, including associated housing and other buildings, are an important and visible element of the City's historic resources. Many structures have been updated and changed over the years so that

only remnants of the original buildings remain, while others have disappeared entirely. Vacant mill structures are threatened unless they are put to uses which will promote their survival.

Marginal uses do not yield the type of revenue needed to protect the integrity of the structures. The condition of structures left vacant may disintegrate to the point where only massive public support will save them. To help prevent demolition of historic structures the City of Worcester adopted a demolition Delay Ordinance in June of 1997. This ordinance provides jurisdiction to the Worcester Historical Commission to enforce a six-month demolition delay period on buildings that are included on the state MACRIS list. new structures to be included on the National Register of Historic Places.

This demolition delay allows six months for state agencies and other interested parties, such as Preservation Worcester, to find alternatives to demolition. In addition, the City of Worcester received a grant in 1999 from the Massachusetts Historical Commission to hire a historical consultant to update the state MACRIS inventory list and prepare eligibility criteria for 85 new structures to be included on the National Register of Historic Places.

4. BLACKSTONE RIVER VALLEY NATIONAL HERITAGE CORRIDOR

- **Blackstone River Valley National Heritage Corridor:** In November 1986, Public Law 99-647 was passed by the 99th Congress, establishing the Blackstone River Valley National Heritage Corridor in Massachusetts and Rhode Island. The legislation established a guiding commission for the Corridor's administration as well as boundaries and mission. In 1989, the Heritage Corridor produced a Cultural Heritage and Land Management Plan which established a guiding action plan for the Corridor with an emphasis on public-private partnerships. Legislation to expand the Corridor's boundaries to include most of the City of Worcester as well as four other communities in Massachusetts and Rhode Island. The City of Worcester works with the Blackstone River Valley National Heritage Corridor Commission to promote the scenic corridor, having successfully developed a Visitor's Center, parkland, and non-motorized multi-use recreational paths and trails.
- **Route 146 / Massachusetts Turnpike Connector:** City and State agencies have completed the reconstruction of Route 146 between I-290 and the Massachusetts Turnpike with a successful improvement to the area's transportation network and promoting carpooling by providing a "park-and-ride" location. The vision for 146 is still to have a park-like feel (bridges, trees and green spaces) that can further help decrease greenhouse gas emissions.

"The Blackstone River Valley National Heritage Corridor is unlike a traditional park or historic site where people come to view historic or natural resources. The Corridor seeks to preserve nationally significant cultural and natural assets right where the people of the Blackstone Valley actually live and work. The concept salutes their proud and common heritage."

- Richard Moore, former Chairman

Blackstone River Valley National Heritage Corridor Commission



The Blackstone River Bikeway



The Blackstone Heritage Corridor Visitor Center.

- **The Blackstone River Bikeway:** An important open space feature of the new Route 146 is the bikeway that stretches from Brosnihan Square to Route 122A in Millbury. Approximately three quarters of the bikeway is independent of Route 146. The bikeway is a component of the regional Blackstone Heritage Corridor Bikeway.
- **The Blackstone Heritage Corridor Visitor Center:** Located south of downtown Worcester, this is a full service, multi-use facility, featuring a welcoming area, historic and cultural exhibits, a theater, restroom facilities, an adjacent passive recreation lawn, classroom and function space. There is direct access to the Blackstone River Bikeway. The Center also includes a regional office for DCR and information pertaining to the Mass Audubon Broadmeadow Brook Wildlife Sanctuary.

K. ENVIRONMENTAL CHALLENGES (POTENTIAL SOURCES OF ENVIRONMENTAL DEGRADATION)

All types of land use have a number of point and non-point sources of contamination. The City's natural resources are threatened by development within groundwater recharge areas; runoff from roads, parking lots and golf courses; poor septic system maintenance; illegal dumping, poorly managed construction, demolition and renovation projects, spills and/or releases of oil and/or hazardous materials (OHM) either from failing storage systems, legacy sites dating back to previous industrial use or sudden releases due to spills. Generally, as development pressure increases, so does the intensity of the land use, increasing the chance of contamination from any number of sources. An example of this would be to use fill for grading from other construction sites that may contain low concentrations of contaminants. Thus, the suitability of the fill is dependent on contaminant concentrations in addition to the condition of the receiving facility. Where large quantities of fill are being transported, the nature and condition of the fill, as well as site development controls (dust, erosion controls) are important to ensure local receptors such as surface water bodies are not degraded. With only an estimated 15% open space remaining in the City, local regulatory methods of resource protection have been put into place to "slow the tide" of degradation and maintain and improve the quality of its natural resources.

1. HAZARDOUS WASTE SITES

Releases of OHM are regulated by the Massachusetts Contingency Plan (MCP); 310 CMR 40.0000, and the Massachusetts Superfund Law (MGL c. 21E), enacted in 1983. In 1993, the Commonwealth created a privatized cleanup program resulting in the licensing of Licensed Site Professionals (LSPs) tasked with managing the cleanup process and MCP response actions.

Privatizing the program and providing incentives for rapid cleanup has allowed the Massachusetts Department of Environmental Protection (DEP)

to concentrate their in house resources on the more serious releases of OHM and has allowed the private sector to address the numerous smaller releases.

The MCP dictates reportable conditions and provides performance standards for cleanup, depending on site risk. This successful program has been revised a number of times since 1993, with recent proposed revisions currently in the public comment period. One of the important categories of closed sites are those that meet the health risk standards for current conditions but cannot meet unrestricted use. As such a number of sites are closed with land use restrictions in place.

In Massachusetts these are known as Activity and Use Limitations (AUL). A site with an AUL has residual contamination at the site however there are no uncontrolled or ongoing sources of OHM. Of the 1331 releases of OHM reported for the City of Worcester, most have been cleaned up and have achieved some sort of regulatory closure. Only 18 sites, approximately 1% of known reportable releases, have not yet achieved regulatory closure. Of the closed sites, 107 are closed with AULs in place. If a site with an AUL is to be redeveloped as open space, it is important to know the nature and extent of residual contamination to address and mitigate site risk. In addition to the MassDEP regulating contaminated sites, EPA (United States Environmental Protection Agency) regulates them under Comprehensive Environmental Compensation and Liability Act of 1980 (CERCLA).

Following preliminary assessments and site inspections, those locations deemed to represent an immediate threat to public health and safety are elevated to the national priority list and are commonly referred to as "Superfund" sites. Although the city boasts extensive industrial development, Worcester is fortunate to be low of documented sites.

2. EROSION AND SEDIMENTATION

Sediment loading from urban runoff results in reduction of aesthetic values, increased turbidity, and smothering of benthic communities. Sediment is also an efficient carrier of toxins and trace minerals that change the composition of the bottom substrates of receiving waters. Soil erosion caused by uncontrolled road runoff and sand applied to highways as a de-icing agent are additional sources of sediments deposited into waterways. Slopes greater than or equal to 15% are regulated within the City's Site Plan Approval provisions of the Zoning Ordinance. Construction impacts are reviewed by the Planning Department as well as various City departments for each petition.

The City's Department of Public Works & Parks presently uses Soil Conservation Service guidelines (Methods for Controlling Peak Discharge from Urban Areas) as well as the University of Delaware Water Resources Handbook (Water Resource Protection Measures in Land Development) as standards for review, linking stormwater management techniques with erosion and sediment control practices. Best Management Practice design and performance



Elm Park

standards should be developed for use by the Planning Board and Conservation Commission in their plan review (Section 3.2.3 of the City's Wetland Protection Regulations establishes only general performance standards for review).

For example, Smith Pond is currently a large wetland which Tatnuck Brook flows through. The pond is filled by sediment and siltation from development runoff on Airport Hill. The siltation was generated from miles away in some instances and conveyed to the pond (its first settling point) through the City's stormwater system.

3. CHRONIC FLOODING

Worcester joined the regular portion of the National Flood Insurance Program in 1980. The purpose of the flood insurance study completed by the Federal Emergency Management Agency is to investigate the existence and severity of flood hazards in the City and to aid in the administration of the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. The Worcester Zoning Ordinance's Floodplain Overlay District regulates development within flood hazard areas identified on Flood Insurance Rate Maps. Development proposals within this overlay district are subject to an administrative review by Building Commissioner and a land use review by the Conservation Commission.

The Route 146/Massachusetts Turnpike Interchange Project for Worcester and Millbury provide an opportunity to correct some drainage problems within the south-central portion of the City, including Brosnihan Square, Green Island, Southbridge Street as well as Ballard and Millbury Streets. Improvements were included as part of the Route 146 contract to the Mill Brook Conduit in Brosnihan Square to reduce flooding in these areas. The conduit conveys stormwater southerly to its outlet at the Blackstone River. Other areas of historic flooding (i.e. Webster Square and the Tatnuck Brook Watershed) have been addressed by retrofit of the City's storm drain system by DPW and/or Army Corps of Engineers.

Additionally, the US Army Corps of Engineers 1960 Worcester Local Protection Project is located in Millbury and Auburn as a result of the record flood of August 1955 which caused extensive damage in the City. This project was authorized by Congress in December 1944 through the Flood Control Act of 1944 for local flood protection on the Blackstone River at Worcester. Major project components consist of a control dam at Leesville Pond, an intake weir and transition section, a concrete lined diversion tunnel, and an open return channel leading to the Blackstone River. The function of this project is to permit return flood flows originating in the Kettle Brook drainage area to bypass the City of Worcester by conducting them to the Blackstone River.

The area protected by the Project consists of dense industrial and residential areas, including over 100 homes, 50 stores and 20 manufacturing plants

(US Army Corps of Engineers, 1990). Several of the City's dams have also been the subject of the National Dam Inspections Program -Phase 1 by the Army Corps of Engineers.

Coes Reservoir Dam (aka Coes Pond Dam) is no longer in a "hazardous" condition. But this is not to be mistaken with the "hazard potential", which is high for Coes Reservoir Dam. The hazard potential classification (low, significant, high) is used to categorize dams based on the potential consequence of failure (loss of life, economic impacts, etc.), and has nothing to do with the condition of the dam. A dam in good condition could still pose a high hazard potential.

4. GROUND AND SURFACE WATER POLLUTION URBAN RUNOFF AREAS

In accordance with the Clean Water Act, the City has implemented a Stormwater Management Program (SWMP), comprised of a wide variety of Best Management Practices (BMP's), which are designed to improve the quality of stormwater discharges from the municipal separate surface sewer system.

The Stormwater Management Plan (BMPs) include illicit connection detection and removal; rehabilitation of twin-invert manholes to prevent cross-contamination of sanitary and storm flows; construction site runoff management; an annual household hazardous waste collection day; a substantial public education program; as well as regular operation and maintenance activities such as catch basin cleaning and street sweeping, etc.

The public education BMPs include informational pamphlets distributed at public events; a newsletter distributed with water/sewer bills; informational meetings; sponsorship of school projects ranging from grammar school to Master's thesis; installing signs where culverted waterways cross City street to raise awareness; catch basin stenciling; as well as partnering with local advocacy groups such as Mass Audubon, Regional Environmental Council and Blackstone Headwaters Coalition. Additionally, as part of the Template for Stormwater Management Program (SWMP) the Department of Public Works (DPW) will be investigating one watershed per year to isolate and eliminate pollution sources.

Combined Sewer Overflows

The City's sewer maintenance program includes catch basin cleaning, sewer flushing, sewer scraping, inflow/infiltration surveys, and on-going sewer separation efforts. Through numerous contracts, the City continues to undertake significant modifications to its sanitary and storm drain system. The objective of those contracts is to alleviate Sewer Overflows to the Blackstone River by constructing separate conveyances for sanitary sewage flows, overflow relief collectors, and a Combined Sewer Overflow Treatment Facility.

Upper Blackstone Water Pollution Abatement District

The Upper Blackstone Water Pollution Abatement District is also regulated by EPA under the National Pollutant Discharge Elimination System and has been issued a permit pursuant to the Clean Water Act, as amended, and the Massachusetts Clean Waters Act, 21 M.G.L. as amended. Additionally, the facility is regulated by a Massachusetts State Water Quality Certification as issued by the Massachusetts Division of Water Pollution Control. EPA proposed new limits for toxic metal pollutants and chlorine discharged into the Blackstone River.

The facility's discharge into the Blackstone River nearly doubles the quantity of water within the River's channel and the facility, despite years of compliance with water quality regulations and permit requirements. The facility treats industrial and residential sewage from Worcester and several surrounding communities and has developed an industrial pre-treatment process on-site in response to changing water quality regulations.

Sanitary Surveys Annual sanitary surveys are completed by the City in compliance with the DEP's Drinking Water Regulations and are currently compliant. A list of registered RCRA facilities was compiled from the EPA's Hazardous Waste Data Management System database and is maintained and investigated by DPW & P staff.



Upper-Blackstone Clean Water Facilities

Upper-Blackstone Clean Water

Upper Blackstone Clean Water is a public agency that provides wastewater treatment services to its member communities of Auburn, Cherry Valley Sewer District, Holden, Millbury, Rutland, West Boylston, and Worcester as well as regional sludge and septage treatment. The treatment facility is about 85 percent funded by ratepayers in Worcester.

The Blackstone River originates at the confluence of Middle River and Mill Brook in Worcester and flows southeast for 46 miles into Rhode Island where it joins the Seekonk and Providence Rivers, subsequently discharging into Narragansett Bay. Upper Blackstone's stringent National Pollutant Discharge Elimination System (NPDES) permit limits are based on the water quality standards of both the River and Bay. To meet these standards, Upper Blackstone operates a biological nutrient removal (BNR) treatment process to reduce conventional pollutants as well as nitrogen, phosphorus, and metals. Investments at the facility have successfully and dramatically reduced pollutant discharges into the watershed.

As part of their stewardship, Upper Blackstone has supported an annual water quality monitoring program in the Blackstone River for over 10 years. This program helps in monitoring trends in river water quality as well as management opportunities for improving water quality and aquatic habitat. The program is conducted under a plan approved by MassDEP who uses the data as part of their routine water quality assessments.

Recently Upper Blackstone completed an upgrade project that included a new chemical storage building. The building was constructed with state-of-

the-art green infrastructure including:

- A vegetated roof to provide stormwater management by reducing the flow directed to the stormwater system, improved insulation with the additional layers of soil and vegetation, extending the roof life by protecting the membrane roof from the sun's UV rays, and reducing greenhouse gas emissions with the plants converting carbon dioxide to oxygen as they grow.
- A water-to-water heat pump utilizing plant effluent, which typically averages about 60°F throughout the year, to supplement the heating and cooling systems.
- A solar wall to reduce the heating load. Outside air is preheated by the sun before entering the air handling unit, reducing energy consumption in the winter months.
- Passive natural lighting is provided by windows on the east and north sides of the building throughout the day. Windows on the west and south side of the building were reduced, which limits the direct sunlight to the facility during the warmer months thereby reducing cooling needs.
- Porous pavers installed around the facility allow rainwater to infiltrate into the ground, reducing flow directed to the stormwater collection system.
- The green infrastructure design concepts that were used on this building help to decrease the environmental impact and operating costs for the new facility, as well as provide a "pilot study" to determine whether they can be used elsewhere at Upper Blackstone. The facility traditionally hosts many student groups for informational walking tours. For more information on Upper Blackstone see ubcleanwater.org.

5. DEVELOPMENT IMPACT SALT STORAGE SITES AND ROAD SALT-ING AREAS

Worcester uses a sand/salt mix on its roads. Several manufacturing uses that can negatively impact water resources are prohibited or more strictly regulated in the Water Resources Protection Overlay District by requiring a grant of Special Permit from the Planning Board. For example, storage of ice control chemicals in quantities of greater than one ton and the disposal of snow containing de-icing chemicals are prohibited in the GP-2 zone and permitted by Special Permit in the GP-3 area.

Industrial Facilities

Approximately 11% of the City's land area is zoned for industrial uses. Several non-conforming uses within vulnerable ecological areas have posed problems for the City over time and have provided good cases for more environmentally protective land use regulations with strong performance-based criteria.

Underground Storage Tanks (UTS)

Oil and other petroleum products contain a wide array of toxic hydrocarbon compounds. United States Environmental Protection Agency (EPA), Massachusetts Department of Environmental Protection (DEP) and the Department of Fire Prevention, have enacted regulations concerning the design, installa-



Hadwen Park

tion, maintenance, monitoring and failure of underground storage tanks. For example, in 1998, all Underground Storage Tanks (USTs) were required to meet certain standards for construction which resulted in upgrades of Underground Storage Tanks (USTs) systems throughout the state. Current Massachusetts Department of Environmental Protection (DEP) programs focus on release prevention and correction. The regulations apply to new, existing and abandoned facilities at which petroleum and/or hazardous materials serving industrial, commercial, educational or governmental operations are stored underground. Recent amendments to the City's Zoning Ordinance prohibit the replacement or installation of underground storage tanks within the City's Water Resources Protection District.

Junkyards

On-site and leaching fluids are the potential sources of contamination from junkyards and abandoned vehicles. These fluids include oil, brake and transmission fluid, anti-freeze/coolant, battery acid and gasoline. Due to their size and nature of their operations, several "recycling" facilities have resulted in adverse impacts to soil, groundwater and surface water. Junkyards with documented releases are regulated under the Massachusetts Contingency Plan (MCP), which stipulates cleanup objectives and remediation goals.

Illegal Dumping

Illegal dumping can be a problem for surrounding receptors depending on the nature of material dumped as well as the location. Sometimes dumping may be discovered and result in a cleanup action by DEP or regulation under the MCP. Many times, dumping may result in overland transport of fill to surface water bodies. Therefore, it is important to understand the nature and extent of impacts and to implement housekeeping, source removal and erosion controls.

Pesticide or Fertilizer

Application Areas Easements for power lines or other public utilities, railroad beds, and golf courses are primary sites for pesticides and fertilizer application because of the intensive maintenance requirements of the land uses. The City has three golf courses, two private facilities and one public (managed by Department of Public Works & Parks). Applications to public utility rights-of-way are regulated by the state's pesticide and herbicide program, where annual maintenance programs are submitted for review and permitting. New utility installation is subject to local wetland regulation provisions.

Non-Sewered Areas

The City's Department of Health Human Services estimates that 2,500 septic systems remain within the City limits. According to the latest Public Works Department sewer service area, many of the systems are located in the outskirts of the City or off private streets not serviced. Within the last five years, a very large system was installed off Ballard Street in close proximity to the Blackstone River and is being monitored by the Health Department.

6. FOREST DEGRADATION

Threats posed by development, particularly during times of economic expansion, and the invasive Asian Long-horned Beetle (ALB) create stress on street trees, woodlands and larger forested expanses. Unchecked land disturbance also creates opportunities for invasive species to take hold, creating further stress on native species. If left unchecked, resulting impacts will affect economic value of lands and properties and further affect opportunities for outdoor activities by Worcester residents.

To address these threats, the City has established a comprehensive web based information center (link from the main page) concerning control of the Asian Long-horned Beetle. The Conservation Commission and other land stewards continue to be vigilant about the control of other exotic invasive plant species. In regard to ALB, the entire geographic limits of the City of Worcester and part of neighboring Shrewsbury, Boylston, West Boylston, Holden and Auburn have been designated at risk to infestation.

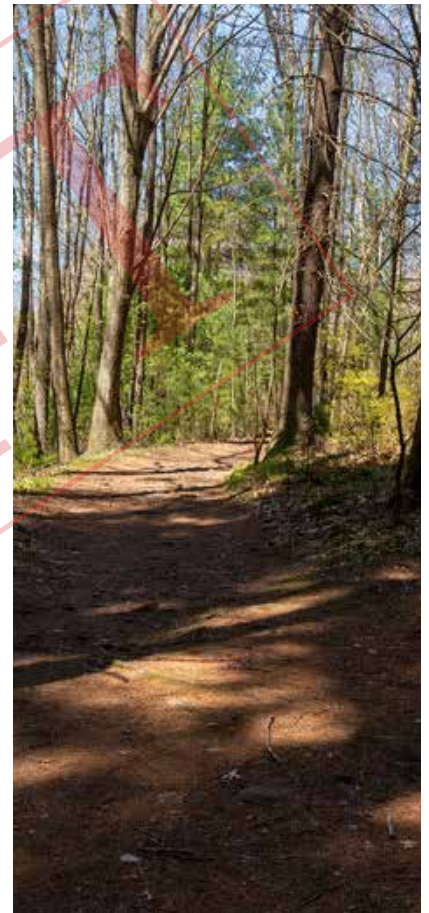
To protect vegetation within the City of Worcester, in 2008, the City Council adopted “An Ordinance Relative to the Protection of Public Trees”. This document recognized the intrinsic value of trees as it relates to visual quality and aesthetics, quality of life and property value. Fines for violating any aspect of the ordinance top out at \$300 per violation.

7. ENVIRONMENTAL EQUITY

Another environmental challenge relates to access to parks and open space properties and to certain types of recreational facilities from within certain geographic sections of the City. Figure “2c - Open Space and Critical Environmental Justice” (EJ) indicate the limits of park and open space lands in relation to regions of the city that are stressed from an environmental equity perspective. To overcome obvious gaps, there will be continued focus on introducing the means to provide improved access to various types of recreational opportunities.

EJ neighborhoods generally run through the center of Worcester in a southwest to northeast direction, primarily within District 2 and District 4. When applying a high bar ¼ mile radius standard (distance from residence to park or open space asset), it is estimated that approximately 40% of the EJ designated area falls beyond this distance. When applying a ½ mile radius standard, less than 10% of the EJ designated areas fall beyond that distance.

In general, access for EJ resident populations to recreational water-based activities, to large open sports field complexes and to woodlands, wetlands and other conservation areas is a challenge. To make improvements, the city has established initiatives to improve recreational opportunities to all citizens. There are other non EJ neighborhoods that appear to be underserved by park and open space assets. This includes large swaths of north-central, northeastern, and southeastern Worcester. These areas tend to exhibit much lower density development overall with larger single-family residential character.



Natural trail at Hadwen Park



Vernon Hill Park

INVENTORY OF LANDS OF CONSERVATION AND RECREATION

A. PRIVATE PARCELS

The definition of the open space according to the Massachusetts' Division of Conservation Services (DCS) is broad, and aligns well with the City's definition. Regardless of the type of ownership, open space includes parks, active and passive recreational lands, conservation lands, forests, agricultural fields, greenways, as well as green buffers along roadways and streetscapes. Open spaces may also include vacant lots, brownfields or other underused, abandoned or forfeited properties that might provide recreational value to surrounding residential neighborhoods.

Open space can be used for passive (and often informal) recreational uses such as walking, hiking, jogging, fishing, bathing, boating, and picnicking, or active recreation such as field-based sports, court games, playgrounds, aquatic parks and other built facilities or amenities that require more formalized and often intensive development and management. Passive recreation might also be referred to as "low intensity recreation" as it usually relies less on built facilities and as such is typically closely aligned with the goals of preserving natural resources and natural habitats.

From another perspective, Paul M. Sherer's article titled "The Benefits of Parks: Why America Needs More City Parks and Open Space" (published by the Trust for Public Lands) articulates many societal benefits that the open space provides including:

- Improve physical and mental health of Individuals
- Strengthen the community
- Expand tourism
- Benefit the economy
- Enhance the natural environment

The American Planning Association's "City Parks Forum Briefing Papers" identified Ten key ways in which open space is used by municipalities to benefit the public:

1. Community Revitalization
2. Community Engagement
3. Economic Development
4. Creation of Safer Neighborhoods
5. Green Infrastructure
6. Help Children Learn
7. Improve Public Health
8. Venues for Arts and Cultural Programs
9. Promote Tourism
10. Promote Smart Growth
11. Help Manage Climate Change

As this Open Space and Recreation Plan is unique to the Worcester community, it is important to put this conversation about open space, and what defines it, into locally relevant context. Overarching goals of the Worcester open space system are focused on the providing of important outlets for passive and active recreational pursuits, building community and creating opportunities for residents to help establish and maintain healthy lifestyles. The City has also come to appreciate that a strong open space system can help yield positive economic activity and development.

The City of Worcester, GWLT, Mass Audubon and other important stakeholders have been unified in their common goal of balancing the preservation of important natural environments, while providing critically important recreation needs to the citizens of Worcester.

Perhaps the most obvious open space asset in Worcester includes the system owned and managed by the Worcester Department of Public Works & Parks. The system includes 61 properties encompassing nearly 1,300 acres of land. Highly recognizable signature properties within this category include Green Hill Park, Worcester Common, Elm Park, Hadwen Park, University Park and Institute Park.



University Park



Elm Park



Rockwood Field

City parks and open space resources provide a wide-range of active and passive recreational opportunities and most of the larger properties host a wide range of public uses and activities.

Beyond the city park system, other high visibility and high use properties used for recreation and conservation include those owned and/or managed by the Massachusetts Department of Conservation and Recreation (DCR), Greater Worcester Land Trust and Mass Audubon.

The chart below identifies the major categories of ownership and management related to the various types of open space in Worcester.

Worcester Open Space System’s Major Owners, Custodians and Managers

Worcester DPW & Parks
Worcester Conservation Commission
Worcester Public Schools
Other City-owned Properties (various jurisdictions)
Massachusetts DCR
Other State-owned Properties (various jurisdictions)
Greater Worcester Land Trust
Massachusetts Audubon
Privately Owned



DCR Pool Facility at Vernon Hill

The **Department of Conservation & Recreation (DCR)** owns four properties that provide opportunities for active recreation and water-based recreation as follows:

- Shine Memorial Pool at Vernon Hill
- Bennett Field Pool at Webster Square
- Quinsigamond State Park (Regatta Point and Lake Quinsigamond)
- Buffone Skating Arena and Lake Park.



Image courtesy of Greater Worcester Land Trust.

The **Greater Worcester Land Trust (GWLT)** owns outright or has conservation restrictions (CRs) for 27 properties in Worcester encompassing hundreds of acres of land. The GWLT is a small non-profit organization created in 1987 to purchase, hold, advocate for, preserve or transfer critical open space parcels in the Greater Worcester area. The majority of GWLT lands are located within the northwestern section of the City. The 13 Worcester properties owned by GWLT encompass more than 400 acres. GWLT also owns or holds conservation restrictions on other properties in West Boylston, Holden, Leicester, Paxton, Grafton and Spencer, and many of these are contiguous with their Worcester holdings.

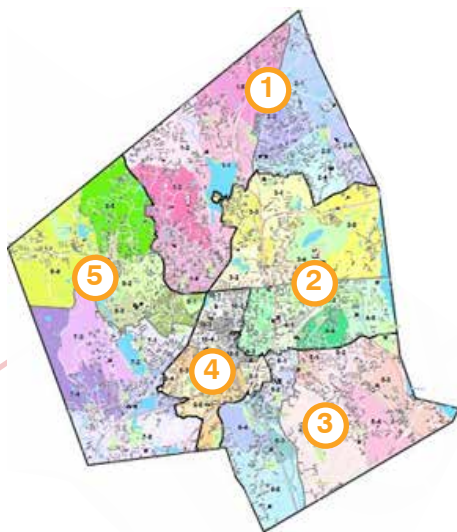
The GWLT is an excellent partner to the City with an impressive group of volunteer rangers who aid in the management and maintenance of properties, particularly in the upkeep of trails and signage systems.

Mass Audubon is a large, non-profit conservation organization with assets throughout the state including the expansive Broad Meadow Brook property in Worcester. Mass Audubon works to protect the nature of Massachusetts for people and wildlife. With more than 100,000 members, Mass Audubon cares for 35,000 acres of conservation land, provides school, camp, and other educational programs for 225,000 children and adults annually, and advocates for sound environmental policies at local, state, and federal levels.

Other important recreational amenities are provided at the fifty Worcester public school properties. At these locations, outdoor playing courts, tracks, fields, children's playground and undeveloped woodlands provide opportunities for a variety of recreational pursuits.

There are also many private schools, colleges and universities in Worcester with hundreds of acres of buildings, indoor and outdoor recreation facilities and undeveloped lands. Many institutions share facilities with City groups during certain times and large tracts of undeveloped and landscaped areas provide wildlife habitat and form a part of the City's environmental ecosystem.

Open Space System Inventorying Process in updating the Open Space and Recreation Plan, all Worcester DPW & Parks properties were visited and inventoried. Following is a narrative description of many of the City's most prominent open space and recreation assets. The City Parks system has been chronicled geographically by Political District. There are five political districts in the City as shown on the diagram below.



(For a comprehensive listing of all open space assets located within the City of Worcester, refer to the Charts contained near the end of this section. For the geographic location of these assets refer to Appendix A City of Worcester's Open Space and Recreation Map - Figure 7.) (For a comprehensive inventory and conditions assessment of all 62 Worcester DPW & Parks properties refer to the individual Site Assessment Forms contained in Appendix D.)

Worcester Department of Public Works & Parks properties are publically owned and managed. There are 62 parks in the system ranging in size from less than ½ an acre to nearly 500 acres. Uses are varied and site amenities accommodate both passive and recreational pursuits. The narratives below are intended to be brief and to provide a quick glance at the richness and diversity of the system in images and a few accompanying words. They are not intended to convey detailed physical conditions of all natural and man-made features and facilities. Scattered within the 28 “briefs” of some of the most significant parks and open space, summaries present some of the collective highlights (and challenges) that have been observed and noted.

B. WORCESTER DPW & PARKS PROPERTIES

DISTRICT 1

This district covers northern and central sections of the City of Worcester. Important and highly visible City-owned parks and open spaces located within this District include the following:

- **149W Boylston Drive:** A neighborhood wood land located adjacent to the Mattson Ave near Indian Lake Park. This site has a narrow path into the wood area.
- **Burncoat Street Playground:** A typical neighborhood playground located adjacent to the Burncoat Preparatory Elementary School, this site has been recently improved with additional upgrades being planned. The site at once must meet the needs of the City as a whole, while supporting the needs of the elementary school community during the school year. The property covers little more than an acre of area and it contains a children's playground, court facilities and open lawns for informal play.
- **Duffy Field:** The 6.8 acres baseball field, contains a newly installed playground and renovated little league field. In 1944, this parcel of 12.88 acres was transferred from jurisdiction of the Bureau of Streets. In 1967, 5.6 acres were used for the WNEB Broadcast Tower.
- **Great Brook Valley Playground:** This site is located next to the Great Brook Valley Housing Complex, which is a part of the Worcester Housing Authority. Nearby residents, or local sports teams, can come here to play softball, soccer, or other games on the multi-purpose field. This park has a softball field and a multi-purpose field for playing sports and games! This park also abuts the Poor Farm Brook on its north-east corner. Nearby to Great Brook Valley Playground are Holland Rink Playground and Tacoma Street Playground.
- **Indian Hill Park:** The Park includes a non-regulation sized baseball diamond and a T-ball field. These diamonds/fields share common outfield



Duffy Field



Indian Hill Park

space. Also over-lapping a portion of the outfield is an area dedicated to flag/touch football, in a half-length football field arrangement. There is also a walking trail, pavilion, picnic tables, playground and basketball court.

- **Indian Lake Beach:** This site is located in the northwest portion of the city. It was the peak source of water for the Blackstone River. In 1828, a dam was built at the outlet of the pond to increase the amount of water for use by the Blackstone Canal. This new reservoir was part of a system of lakes and ponds used to control the flow of water in the Blackstone Canal. However, the canal was a short lived project that vanished due to the rising use of the rail system and complaints from mill owners within the Blackstone River watershed. Today, activities on Indian Lake include boating (motorized and non-motorized), swimming, fishing, ice fishing, skating and snowmobiling.
- **Kendrick Field:** This nearly 15 acre property provides wide ranging, mostly active recreational facilities (including 4 major field complexes) that support local and citywide sports programs and also neighborhood uses. The City has completed a master plan and multiple phases of park improvements, with additional work in the planning stages. Active citizen involvement at this site helps to maintain many of the park facilities.
- **Morgans Landing:** This site include a picnic area, tennis court, boat ramp, fishing dock and small walking path. As one of the only boat ramps in Worcester, this feature makes Morgan Landing very unique and desirable to boaters.
- **Salisbury Park:** This 12 acre park site contains the historic Bancroft Tower surrounded by an expansive and shaded open lawn. Beyond the Tower, the site is largely undeveloped and geared toward passive recreational pursuits. It is situated on a dramatic hillside, with beautiful views out across the City. Recent improvements have included the refurbishment of the access drive and parking area located adjacent to the Tower.
- **Shore Park:** The largest of three public park properties located along the banks of Indian Lake (the other two properties are Morgan Landing and Indian Lake Beach). The park site is located across the street from the Bancroft School (a private junior and senior high school) and adjacent to the YMCA. Important site features include a bathhouse, picnic grounds, sand volleyball court, sandy beach for sun bathing, swimming and expansive open lawn areas for informal activities.
- **Tacoma Street Playground:** This site encompasses nearly 20 acres of land area and it contains both developed park amenities and undeveloped and steeply sloping woodlands. The existing master plan supports citywide needs, and specifically the nearby Great Brook Valley housing



Kendrick Field



Salisbury Park



Shore Park

development. This park is indicative of numerous other properties in the system where there have been few recent capital investments and as a result facilities appear worn and outdated.

DISTRICT 2

This district covers eastern and central sections of the City of Worcester. Important and highly visible City-owned parks and open spaces located within this District include the following:

- **Bell Hill:** This park is located at the summit of Bell Hill, also known as Chandler Hill Park. It features Bell Hill Pond, formerly known as Bladder Pond, which was Worcester's first reservoir/water supply in 1845. This site is bordered by Belmont Street to the north, Shrewsbury Street to south and east and a densely packed neighborhood of mostly apartment buildings to the west.

In one area of the park, you can play basketball, play on the playground, go for a swim or simply look out at Bell Pond. In another area, Chandler Hill Park, you can play a variety of sports depending on the season on the multipurpose field.

- **Betty Price Playground:** The property consists of two parcels: one initially acquired from Prospect House, Inc. in 1968 and a second parcel acquired by the City in 2000. This playground area recently underwent site improvements in an effort to contribute to the City-wide Parks & Playground Improvement Program, "Pride in Our Parks." These improvements include a new ADA accessible playground with a poured-in-place surface and playground equipment for ages 2-5 and 5-12. Also included was the installation of a fitness area with a poured-in-place surface and multi-point training system, new lighting, a paved walkway, an ornamental and chain link fence, shade shelter, picnic tables, benches, trees and a new park sign.

- **Burncoat Park (also historically known as North Park):** This diverse property provides wide ranging passive and active recreational resources that serve both citywide and neighborhood interests (including the Wawecus Road Elementary School, Burncoat Senior and Middle Schools, and the Hanover Insurance corporate campus). Burncoat Park Pond provides opportunity for fishing and for bird/nature watching and open fields provide opportunity for both informal and formal sports and other activities and an expansive pathway system accommodates walking, jogging and biking.

This park is indicative of numerous other properties in the system where a playing field complex has received few recent capital investments and as a result conditions appear worn and user experience is compromised.



Burncoat Park

- **Cristoforo Colombo (East) Park:** Located within the busy and vibrant Shrewsbury Street commercial district. This important neighborhood and citywide park contains lighted fields for football, as well as tennis courts and basketball courts. The park also includes a splash pad, a state-of-the-art children's playground, amphitheater, and many acres of undeveloped hillsides with trail connections to Bell Pond Park, Green Hill Park and other open space destinations to the northeast. As such, East Park forms the southern-most piece of the East Side Trail system.
- **Dodge Park:** This 9.1 acres site has a gazebo, a picnic area and nature trails to enjoy. In 1864, Thomas and Eliza Dodge moved to Worcester, where they became generous donors to many organizations. In 1881, he and Charles Washburn organized the Worcester Barbed Wire Fence Company. Thomas Dodge donated the 13 acres of land to establish Dodge Park in 1889. He was an inventor, in addition to studying law. Dodge died on February 12, 1910, leaving a rich legacy of philanthropy to the City of Worcester.
- **Downtown Dog Park:** The City's third off-leash dog park opened on October 18, 2018. It is a fenced and secured area which offers dogs and dog lovers a place to go and enjoy the company of other animals. The dog park is located by the intersection of Franklin Street, Foster Street, Francis J. McGrath Boulevard and Green Street, abutting the railroad bridge at Mailea Square. It is a 7,376 square foot area. This park also offers complimentary dog waste disposal bags for dog owners to help keep the park clean.
- **Fairmont Park:** This site is located atop Poet Laureate Hill off of Grove Street. Largely a neighborhood park, it has a playground, circular half basketball court and a picnic area. This park also features amazing views of downtown Worcester. In addition, Fairmont Park has an amphitheater and occasionally hosts various events at the park.
- **Grant Square:** This site is a 1.7-acre park located in the Green Hill neighborhood of Worcester, near Lincoln Street, I-290, and Belmont Street. The park property was acquired in two sections - a smaller portion in 1892, and a larger tract (from private owners) in 1904. The smaller site was originally intended for use as a school house, but after the larger piece was acquired, the two were combined into a single tract for park use. The origin of the park's current name is unknown; it was originally called "St. Charles Park". In 2016, the Green Hill Neighborhood Association celebrated the official reopening of the park at their Annual Community Picnic. In 2015, the city completed stage one of the park's rehab, installing a state-of-the-art playground, a brand new basketball court and community garden beds.



Cristoforo Colombo (East) Park



Green Hill Park

- **Green Hill Park:** The City's largest and most diverse park, this site encompasses nearly 500 acres of land and includes a golf course, farm yard, playing fields space, playgrounds and a network of drives and parking areas. The State-wide Vietnam Veterans Memorial is located within the core of the park site in close proximity to Green Hill Pond, a 30-acre "great pond". The site contains unique historical and environmental assets. The sheer size of the park and the dramatic and rugged terrain make access to the site difficult, with most visitors needing to arrive via automobile.

The City has invested more than \$10M in recent years upgrading utility systems, park drives, parking areas, the wide range of passive, active recreational facilities and amenities. Recent open space purchases have extended the boundaries of Green Hill Park. The Worcester Technical High School is located to the east of the park site and the school makes use of a large sports field complex located within the park. The High School dedicates 100's of volunteer hours throughout the school year to improve the park.

- **Harrington Field:** Fields courts and playground define this important six acre park property. Fields accommodate major sports league activities and all features provide opportunity for a wide range of City and neighborhood uses throughout the year.

This park is indicative of numerous other properties in the system where children's playground facilities are old, worn and outdated from a code compliance perspective.

- **Holland Rink Playground:** Located on the corner of I-290 and Lincoln Street, this 3.9 acre park has a playground, two basketball courts, a small baseball diamond and a walkway and benches around the park. Seven hardwood trees and four Maple trees were planted along the Lincoln Street border to replace the vegetation that was lost during the highway exit expansion.

Holland Rink Playground was originally a part of Green Hill Park, until I-290 was built in 1967. This severed the Holland Recreation Area from the body of Green Hill Park, eliminating its swimming pool and making the land into a neighborhood park with a ball field and basketball courts.



Holmes Field

- **Holmes Field:** More than just a field, this 8 acre park site located on busy Plantation Street provides a venue for sports leagues, public school sports programs, and lots of informal neighborhood uses. Fields, courts, and children's playgrounds are scattered throughout the property. The City recently completed accessible improvements that includes tennis, pickle-ball courts, playground, pathways, and electrical service upgrades for future pathways and site lighting.

- **Institute Park:** This 44 acre and important park is home to an outdoor performance pavilion, meandering pathways and rolling and shaded lawns, tennis courts and numerous park support buildings. The historic park dates to the late 1800's and has long been connected to the Worcester Polytechnic Institute campus which surrounds the park.
- **Salisbury Pond:** An important water resource that possesses unique environmental, recreational and aesthetic qualities. In 2013, the City analyzed the pond and identified a variety of approaches to improving the pond's physical condition. The City also completed a master plan process in 2007 and has implemented several phases of improvements, with more improvements being planned. Current Improvements include new synthetic turf at O'Connell Field, Fighters Memorial, and walkways/boardwalk.
- **Korean War Memorial:** This site on Worcester Center Boulevard near Washington Square honors the 191 young soldiers from Worcester County who made the supreme sacrifice in the Korean War. A polished black granite wall is inscribed with the soldier's names. Thousands of people attended the dedication ceremony, which was the culmination of an effort that spanned decades.
- **Lake View Playground:** This site is a neighborhood park located on Lakeview Street, less than half a mile away from Lake Quinsigamond. This park features a playground, a swing set and a half basketball court.
- **Ramshorn Island:** This site is a small island on Lake Quinsigamond. This island is located on the south side of the newly renovated Burns Bridge. While many of the islands on Lake Quinsigamond are privately owned, Ramshorn Island is owned by the City of Worcester, therefore it is open to public use. Worcester's island park is currently only accessible by boat. This island became a city park in 1919 and was the former home of various boat clubs.
- **Worcester Common:** This critically important open space asset dates to 1669. In a single, 4 acre parcel vital historical, cultural, social, recreational, civic and economic development attributes are woven together within an integrated fabric of features and spaces. The City has invested more than \$6M into a series of public improvements that are intended to foster wide ranging passive and active recreational uses and help to restore the site to a central position in civic life. A new public outdoor skating facility has proven to be very successful during cold weather months and the same space is used for seating, concerts, other public gatherings and events during warm weather months.



Institute Park



Worcester Common

DISTRICT 3

This district covers eastern and southern sections of the City of Worcester. Important and highly visible City-owned parks and open spaces located within this District include the following:

- **Ball Property:** This site is a City park consisting only of a nature trail. This conservation area is used as a wildlife sanctuary. Located along the Blackstone River and Broad Meadow Brook Trail, this area is known as the “Smiley Face” Trail. The slogan for this park is “Take only Pictures, Leave only Smiles”. This is a cooperative conservation project between The City of Worcester, Massachusetts Audubon Society and the Greater Worcester Land Trust.

- **Banis Playground:** This site is a small 2,500 square foot park located on the corner of Dorchester and Houghton Street. Acquired by the City in 1947 and it was named for its location, as it is situated in “Banis Square.” The park features a playground, seating and picnic tables.



Blackstone Gateway Park

- **Blackstone Gateway Park:** This site is located approximately three miles south of the Worcester Downtown Business District on the edge of the Quinsigamond Village neighborhood. This new riverfront park stands out as a unique urban park in the City providing recreational amenities while maintaining the feel of a forested park surrounded by flowing water and stands of large canopy trees. The park features 3,000 linear feet (about a half-mile) of accessible walking paths, elevated boardwalks and three bridges crossing a section of the Middle River that runs into the headwaters of the Blackstone River, adjacent to McKeon Road. The park also features a brand new visitor center.



Blithewood Park

- **Blithewood Park:** Is a 3 ½ acre facility that serves as a citywide social and recreational focal point of an active and committed neighborhood. The park contains a within playground, Little League field, court area, gazebo and looped pathway. The City has renovated and expanded the playground and parking lot within the last years. Like many park properties, Blithewood Park accommodates both formal league uses and informal neighborhood uses on a daily basis.



Greenwood Park

- **Greenwood Park:** Encompasses 14 acres of hilly terrain and contains opportunity for both active and passive recreational uses. The steeply sloping, rocky woodlands possess trails that link the park to Greenwood Street. Courts, fields and a playground provide opportunity for more active recreation in formal (through league play) and informal means. The City has completed a community based and supported master planning process and plans for a new round of improvements are progressing with implementation for feature phases.

Greenwood Park formerly contained a pool complex. The pool complex was replaced with a major outdoor splash pad facility and the former bathhouse was renovated to support this new amenity. Existing support buildings have been recently renovated to make them weather-tight.

- **Lake Park:** Is another important open space that encompasses nearly 75 acres of land and links to other important open space resources including DCR's Quinsigamond State Park located across Lake Street. The park contains fields, a basketball court and large, and a large undeveloped expanses of woodlands and trails. Several accessible park support buildings are also located at the site. The City has invested heavily in new facilities at Lake Park in recent years and current plans call for ADA compliant renovations to an existing bathroom building.
- **Mulcahy Field:** This site is a 4-acre park located in the Grafton Hill neighborhood on Dorchester Street. It is just across Arthur Street from Banis Street Playlot. This park features a baseball field, a softball field, a playground, a basketball court and a batting cage.
- **Oakland Heights Playground:** This site is a neighborhood park located off of Route-20, which is surrounded on three sides (north, south and west) by residences, and is adjacent to land owned by a church to the east. The Broad Meadow Brook Wildlife Sanctuary is located to the east and north of the church property.
- **Providence St Playground:** This 4.6 acres site has been a city park since 2010. It features a new playground, which is split into two sections. One side is focused on younger kids, while the other side is geared toward older kids. It also contains Glodis Field, a multipurpose turf field named after the late State Rep. William J. Glodis.
- **Vernon Hill Park:** Is an important, high-visibility gateway city park and playground that encompasses 15 acres and is located adjacent to other open space assets (DCR Shine Memorial Pool and Worcester Academy playing fields). The park has undergone major renovations. Vernon Hill Park contains an array of fields, courts and a children's playground that meets the needs of both neighborhood users and citywide groups.



Lake Park



Providence St Playground



Vernon Hill Park



Cookson Field

DISTRICT 4

This district covers central and southern sections of the City of Worcester. The district is the smallest district geographically yet it covers high density residential and mixed use areas located within center city. District 4 contains the largest environmental justice populations. City-owned parks and open spaces located within this District include the following:

- **Cookson Field:** Encompassing nearly 20 acres of land, this park contains remnants of an abandoned ball field that dates to the middle of the 20th century. The field is no longer in use and woodlands now permeate much of the park off of College Street. A partnership with adjacent Holy Cross College has helped to implement a new playground, a trail head and a small parking area at the edge of the park. Which provides access to the myriad of woodland trails that wind through the incredibly hilly and rocky terrain. The park is favored for walking and hiking and significant changes in elevation provide dramatic views out over the city.
- **Crompton Park:** This 12 acre site provides a wide range of active recreation facilities in the form of fields, courts, a playground and a state-of-the-art aquatics complex. The City completed a community based and supported master planning process in 2009 and continues to implement wide ranging park improvements in accordance with the priorities and preferences established in the master plan. Recent improvements include expansion and renovations of the Bob Cousy Court(s). Future improvements include a new skate park and multi purpose fields. Crompton Park provides important recreational opportunities for the high-density neighborhood that surrounds and for city residents overall. Meandering walks and mature shade trees provide the chance for more passive recreational pursuits.
- **Elm Park:** Is one of Worcester's most beloved park and open space asset. It is a historic park that was established in the mid 1850's by a progressive City looking to preserve open space for the enjoyment of its citizens. The most highly developed portion of the park is "Olmstedian" in nature and located to the south of Park Avenue. Much of the park's 58 acres are less developed (located north of Park Avenue) and typified by woodlands and trails and the City's only disc golf course. Numerous historic structures dot the landscape of Elm Park. The City has expended nearly \$3M in improvements in an effort to refurbish much of the park's landscape with improvements ongoing. This park hosts most of the cultural events, such as concerts.



Elm Park

Elm Park is located in both Districts 4 and 5. District 5 lands extend to Newton Square where a series of courts, monuments and passive seating areas are located.

- **Oread Castle Park:** The City embarked on a master planning process during the spring of 2013. The park provides open lawns and woodlands, and an accessible looped walkway for passive recreational uses. A variety of courts, a playground and fitness stations provide opportunities for more active uses. The site is located in one of the most high density sections of the City with several public schools and at least three community garden within walking distance of the site.
- **South Worcester Playground:** This site is also known as Harry Sherry Field and as Maloney Field, became a City park in 1986. This 5-acre park is located on Cambridge St and is the home of the South Worcester Baseball league. This park features two baseball fields, a soccer area, two handball courts, a basketball court, a playground, the Camp Street Community Garden and the South Worcester Neighborhood Center.
- **University Park:** Is a scenic park noted for its undulating lawns, graceful mature shade trees, meandering walkways and pond. The site encompasses 14 acres of land and provides the perfect venue for a wide range of passive and active recreational pursuits. A community based master planning process has been completed and the City has embarked on implementing phased of improvements. The park serves a large, high density mixed use residential population and is located adjacent to the Clark University campus.
- **Winslow Park:** Also known as Peace Park, this compact site is typical of many “pocket” parks located within the City. With less than a ½ acre of land, the site serves the City and the surrounding community with a walkway that doubles as a bike and scooter track and new park including amenities. Improvements were based on a recently completed master planning effort.



Oread Castle Park



South Worcester Playground



University Park

DISTRICT 5

This district covers the western section of the City of Worcester. Important and highly visible City-owned parks and open spaces located within this District include the following:

- **Apricot Street Playground:** A small park (2.3 acres) located on the corner of Merchant and Apricot Street near the Worcester-Leicester line. This park features a small playground, a swing set and a few picnic tables. It has been a City Park since 1940.
- **Beaver Brook Park:** Encompasses 18 acres of land and possesses a wide assortment of field, courts and playgrounds. The park has undergone a major transformation that renovated many facilities and “day-lighted” a significant length of Beaver Brook that was formerly contained within a covered culvert. This park contains one of several dog parks identified in ‘The Dog Park Feasibility Study’.



Beaver Brook Park

- **Bennett Field:** An almost 6 acre park, undergoing renovations to the ball field and retaining wall along Gates Lane. Bennett field is located behind the state Veterans Memorial Pool in Webster Square. This park features a softball field, a playground and a pool.
- **Boynton and Cascades Parks:** A major open space assets located partly in Worcester and partly in Paxton. Encompassing approximately 160 acres of land the sites are largely undeveloped and favored by visitors for passive recreational pursuit. One small field is located within the property. Recreational elements are limited and include primarily a series of interpretive signs and trail markings. Picnic amenities are deteriorated and much of the site has been impacted by past storms.



Coes Pond Park

- **Coes Pond Parks:** A series of open space assets that form the western, southern and eastern edge of Coes Reservoir. Properties include a public swimming beach (Binienda Beach) at Mill Street, a new fully accessible inclusive playground and historic buildings (Stearns Tavern). At the site of the former Coes Knife Manufacturing, a pathway corridor is located on the south east portion of the Coes Reservoir (Property), the Columbus Park, the Fonton Parcel and ends at the Coes Pond park. A master plan was completed for this series of interconnected properties, and the City has implemented improvements that includes a small parking area, pathways, a bridge across the Coes Reservoir/Tatnuck Brook spillway, new fields and playgrounds. Additional improvements include a board walk/trail, an outdoor classroom at Columbus Park and accessibility expansion at Binienda Beach.

- **Farber Field:** A small park located off of Moreland Street on Worcester's West Side. This park features a rectangular multi-purpose field. Depending on the season, most often soccer games or football games are played on this this type of multi-purpose field.

- **Fenton Parcel:** A city property but not technically a park. Also known as Columbus Park.



Hadwen Park

- **Hadwen Park:** Like so many of Worcester's larger park sites, the property encompasses over 58 acres of land with portions of developed recreation facilities and dozens of acres of rolling, heavily wooded terrain. A former park drive (no longer open to the vehicular traffic) links the northwest side of the park to the southeast park corner. Spectacular views abound from the property out over the wetlands and water bodies associated with Curtis Pond and Ramshorn Brook. Located at the edge of the park near Heard Street there is a new renovated playground, a parking lot, a renovated BB courts and a preexisting baseball field. A recently complete P.A.I. elevated boardwalk was recently completed with future phases in design. A grove of magnificent, ancient beach trees is located along a steeply sloping area of the site not far from the Heard Street entrance.

- **John W. Spillane Memorial Field:** A memorial field that has black chain-link fencing, dugouts and backstop; a recently sodded baseball field, with smoothly raked infield dirt and bright yellow foul poles; high netting to protect nearby homes; two sets of bleachers; and a small playground with swings, slides and other kid-friendly equipment..
- **Logan Field:** Provides a major venue for organized sports leagues with a softball and baseball field. A basketball court provides a venue for conditional active use. The City has completed a master planning process and major improvements to the softball field and surrounding park area were completed in the spring of 2013. Additional improvements, including baseball field upgrades and a new playground are planned.

The park site is located along busy Mill Street and parking is on-street. Steeply sloping, heavily wooded terrain forms the western side of the park. A few worn pathways provide limited access to these park areas.



Logan Field

- **Rockwood Field:** Located along Chandler Street, Rockwood field is a major venue for organized sports including baseball, Little League, softball and soccer. Like so many parks in the system, facilities serve many stakeholder groups including in this case the surrounding neighborhood, city as a whole and the adjacent Worcester State University community. The City has entered into partnerships with sports organizations and Worcester State University to undertake significant upgrades and maintenance to the property. A master plan has guided multiple phases of improvements to the property in past years including construction of a new baseball field, softball field, park support building and significant stormwater management system upgrades.



Rockwood Field



Rockwood Field

- **Ty Cobb Park:** A park that is located on James Street near the Worcester-Auburn line. This park features two little league baseball fields and a softball field. Ty Cobb Park is the home of Ty Cobb Little League, which was established in 1952, being one of the first three Little Leagues in Worcester.

C. WORCESTER CONSERVATION COMMISSION

The Worcester Conservation Commission is identified as the owner of 43 properties encompassing nearly 400 acres of land. The Conservation Commission is not an active manager or custodian and historically has been underfunded for capital improvements or property upkeep. For some of the larger properties, management and maintenance structure is provided through partnerships (with City DPW & Parks, Greater Worcester Land Trust and/or Mass Audubon). The chart below identifies the four largest holdings (representing 75% of the total acreage) of the Conservation Commission.

Conservation Commission Property	Acreage
Perkins Farm	78
Broad Meadow Brook	145
Mooreland Woods	21
Dawson Road	63

D. GREATER WORCESTER LAND TRUST (GWLD)

The Greater Worcester Land Trust owns property outright and also owns Conservation Restrictions for lands in which it participates in managing and maintaining.

The organization's website (<http://www.gwlt.org/>) provides an excellent summary of the properties in which it holds an interest, including significant interests of property in adjacent communities.

The GWLT is keenly interested in creating "greenways" by connecting or otherwise linking various open space assets. To this end, linear systems have been created making use of open space assets owned by the City of Worcester, Mass Audubon, GWLT and other stakeholders.

Some of the larger properties for which GWLT possesses rights are included in the chart below:

Greater Worcester Land Trust	Acreage
Nick's Woods	60
Bovenzi Park	84
Lindberg	38
Kettle Brook	16
Tetasset Ridge	17
Cascade West and Waters	150
Marois Property	27

E. MASS AUDUBON | BROAD MEADOW BROOK WILDLIFE SANCTUARY

Mass Audubon is a prominent open space owner, manager and advocate within Worcester. From a signature open space property located in south-eastern Worcester (Broad Meadow Brook Wildlife Sanctuary), Mass Audubon provides a wide range of passive recreational opportunities and notable environmental educational programs to residents of the City, particularly school-age children. Broad Meadow Brook encompasses more than 400 acres of land area (under various ownerships).

There are more than five miles of well-marked trails with impressive natural diversity of the land including a Black Oak Savannah, Cattail Marsh, Red Maple Swamp, Broad Meadow Brook and heavily wooded upland areas.

Mass Audubon is the owner of 17 separate parcels of land totaling 56 acres of area. Under agreements (with the City of Worcester, National Grid and the Greater Worcester Land Trust), Mass Audubon manages an additional 340 +/- acres of land that form the whole of the Broad Meadow Brook Wildlife Sanctuary.

Parks, playgrounds, open spaces and other resources of important cultural and historical nature are best preserved from potential future development when they are legally protected by legislation. The most common forms of open space asset protection are described below.

Article 97 protects land acquired for natural resources purposes in a very broad sense. It states that the land for “the conservation, development and utilization of the agricultural, mineral, forest, water, air and other natural resources is hereby declared to be a public purpose”.

In Worcester, most lands owned and operated by the Department of Public Works & Parks, Parks Division and the Conservation Commission are protected under Article 97.

Privately owned lands can also be protected under Article 97 if the deed is restricted by a **Conservation Restriction, Agricultural Preservation Restriction, Historical Restriction, or Wetland Restriction**.

In Worcester, organizations such as Greater Worcester Land Trust (GWLT), Mass Audubon, other non-profits (Green Hill Park Coalition for example) and private institutions (collected universities), contribute to the protection and preservation of conservation lands that save open space from development and urban sprawl.

Restrictions on land owned by the City (Conservation Commission or DPW & Parks). The reverse is true for the City, i.e. the Conservation Commission or DPW & Parks may hold Conservation Restrictions for lands owned by non-profit organizations such as GWLT and others. These types of agreements have been mutually beneficial in Worcester to ensure the protection and preservation of the hundreds of acres of land possessing vital recreational benefit and unique natural resources. It has also allowed the city to be able to expand and protect their acquisition of properties for the purposes of conservation.

A. PRIVATE PARCELS

(Refer to Appendix A City of Worcester's Open Space and Recreation Map - Figure 7, and to the inventory charts contained at the back of this section.)

Chapter 61, 61A or 61B refers to lands under special taxation programs, managed by owners of forestry, agricultural, horticultural or recreational use.

Forest Lands under Chapter 61

Chapter 61 of the General Laws was enacted to encourage the preservation and development of the Commonwealth's productive forest land. If forest land qualifies for classification under Chapter 61, it will be taxed exclusively under the provision of that chapter and will be exempt from full value property taxation. In order to qualify:

1. The land must consist of at least 10 contiguous acres of "forest land,"
2. The state forester must certify that the land is managed under an approved 10 year rest management plan and,
3. A timely and completed application for classification must be submitted to the assessors. Assessed valuations are 5% of the "full and fair cash valuation" of the property or \$10 per acre, whichever is greater, plus an additional products tax of 8% on the actual products (timber) cut.

Examples of property falling into this category are included in the chart below.

Owner	Location	Acreage
Lauring	Moreland St.	21.16
Donker	Tory Fort Lane	24.0

Agricultural Lands under Chapter 61A

Chapter 61A – A constitutional amendment approved by the voters of the Commonwealth in 1972 authorized the General Court to provide for the valuation and taxation of agricultural/horticultural land based solely upon the land's agricultural/horticultural use.

The purpose of assessing agricultural/horticultural land solely on the basis of the current use it to promote the development and conservation of these types of lands, considered to be a valuable resource of the Commonwealth. Qualifications for this designation include: 1) the land must be “actively devoted” to agricultural/horticultural uses, 2) the parcel must be of at least 5 contiguous acres, 3) the gross sales from the land actively devoted to agricultural/horticultural uses must be \$500 or more per year and 4) the land must be actively devoted to agricultural/horticultural uses for at least 2 tax years immediately preceding the year for which the classification is sought.

The valuation of Chapter 61A properties is in accordance with Department of Revenue guidelines published on an annual basis.

The range currently begins at \$35 an acre of non-productive land to \$19,080 per acres for “above average” productivity for cranberry productions.

Examples of properties falling into this category are included in the chart below.

Owner	Location	Acreage
Barys	Rydberg Terrace	6.73
Ence	Airport Drive	5

Open-Recreational Lands under Chapter 61B

Chapter 61B of the General Laws provides some measure of tax relief to land utilized for certain qualifying “recreational” purposes. Chapter 61B provides a tax benefit by classifying land, when appropriate, as “recreational land” and taxing it exclusively under the provisions of Chapter 61B. Under this Chapter, recreational land is valued and assessed on the basis of its present use rather than upon its full and fair value, and in no event may the valuation exceed 25% of the full and fair value. Land will qualify if it consists of five or more acres and is retained in a substantially natural, wild or open condition or in a landscaped condition, provided the condition of the land allows to a significant extent the preservation of wildlife and other natural resources. The above land need not be open to the general public for qualification. Land of five or more acres may also qualify solely on the basis of its recreational use, provided such use does not materially interfere with the environmental benefits derived from the land and the land must be made available either to the public or to members of a non-profit organization.

The only qualifying recreational uses are: hiking camping nature study and observation, boating golfing, horseback riding, hunting fishing, skiing, swimming, picnicking, private non-commercial flying, hang-gliding, archery or target shooting.

Examples of property falling into this category are included in the chart below:

Owner	Owner Location	Acreage
Tatnuck Country Club	Rice Street	165.47
Worcester Country Club	Cooks Pond	235.56
Smith's Pond Co	Brigham Rd	22.60
Estabrook	Massasoit Rd	9
Schmitt	Bend Rd	5.22

B. PUBLIC AND NONPROFIT PARCELS

There are many other types of properties that provide open space benefits. While not analyzed in depth, these properties have been identified below:

Worcester Public Schools

- See Listings in Inventory Chart

Other City of Worcester

- (Ownership designations unclear, no Article 97 protection afforded)
- See Listings in Inventory Chart

Major Institution Holdings (Private)

- Assumption College
- Bancroft School
- Clark University (incl. Hadwen Arboretum)
- Holy Cross College
- Worcester Academy
- Worcester Polytechnic Institute

Major Institution Holdings (Public)

- Quinsigamond Community College
- University of Massachusetts Medical Center
- Worcester State College
- Worcester State Hospital

State Highway Land

State Highway Land	
MHD Excess Land	38.2
Highway Taking	1.0
R.O.W Parcels	3.4

Recreational Water-based and Linear Trail Systems

As part of the inventory effort, we have included information related to recreational water-based and linear trail systems.

The Appalachian Mountain Club (AMC), together with the Mass Audubon and Greater Worcester Land Trust have provided the following information about current recreational water-based activities:

CANOEING FACILITIES				
Water Body	Canoeing	Need permit	Ramp Access	Parking
Bell Pond	Yes	Yes	No	Yes
Indian Lake	Yes	No	Yes	Yes
Lake Quinsigamond	Yes	No	Yes	Yes
Green Hill Park Pond	Yes	Yes	No	Yes
Salisbury Pond	Yes	Yes	No	No
Coes Reservoir	Yes	Yes	No	?
Cook Pond	No	N/A	N/A	N/A
Patch Reservoir	No	N/A	N/A	N/A
Curtis Pond	No	N/A	N/A	N/A
Burncoat Park Pond	No	N/A	N/A	N/A
Leesville Pond	Yes	No	No	N/A
Jamesville Pond	?	N/A	N/A	N/A
Flint Pond	Yes	No	Yes	Yes

Source: AMC (2013, still in process).

The GWLT and Mass Audubon have provided the following information on linear trail systems:

PLACES TO HIKE IN GREATER WORCESTER		
Name	Length (miles)	Location
Black River Bikeway*	5m	Worcester, Millbury
Bovenzi*	Several	Worcester
Broad Meadow Brook (U)	5m	Worcester
Burncoat Pond	4m+	Spencer
Cascades & Boynton Parks*	Several	Paxton, Holden, Worcester
Cascading Waters and Cook's Pond*	1m	Worcester
Cider Mill*	1.5m	Worcester
Cook's Canyon	2m	Barre
Crow Hill	Several	Worcester
Deed Rock or God's Ten Acre	Several	Worcester
Eagle Lake	Several	Holden
Eastside Trail	6m	Worcester
Kettle Brook*	2-3m	Worcester
Moore State Park*	1m >	Paxton
Moreland Woods*	?	Worcester
Newton Hill and Elm Park*	+/-1-2 m	Worcester
Nick's Woods*	2-3m	Worcester
Perkins Farm*	?	Worcester
Piermont Meadow (U)	Several	Dudley
Rail Trails- Mass Central Rail Trail (Some U and some *)	1-4 m trails	Sterling, Holden, Rutland, W. Boylston
Southwick Pond*	2m	Paxton, Leicester

(*) = Dogs on leashes are allowed

U = Trail has some universal access trails

Trail length is in miles, round trips & approximate)

The inventory tables were compiled from the following GIS data sources: MassGIS, City of Worcester GIS, and GWLT GIS.

The total acreage was based on actual parcel size for accuracy, and therefore includes some undeveloped properties with no access, dense vegetation, etc. The available recreation land will therefore vary from the total acreage (parcel size) listed depending on each property.

For detailed information on the City parks' current use, condition, recreation potential and public access of park properties please refer to Appendix D, Site Inventory Forms.

All Parks Department Parcels zoning is under "OS-P Parks" and "OS-Con-Comm" for Conservation Commission parcels. All City parks and Conservation Commission properties are protected under Article 97. For other/private properties, Conservation Restrictions (CR) as of 2020 are listed on the following tables.



Cascades Park

Park Managed Properties

NAME OF PARCEL	ASSESSORS OWNERSHIP	No.	STREET	DISTRICT	CR STATUS	ACREAGE	RECREATION USE TYPE	GRANT FUNDING	MANAGEMENT	CONDITION	PUBLIC ACCESS	ZONING TYPE
Boynton Park	CITY OF WORCESTER	0	599 MOWER STREET	1	None	89.25	Park		DPW & Parks	Appx. D	✓	
Burncoat Street Playground	CITY OF WORCESTER	524	BURNCOAT ST	1	None	1.26	Playground		DPW & Parks	Appx. D	✓	SFR 7000
Great Brook Valley Playground	CITY OF WORC PARKS DEPT & WHA	1	BROOKVIEW DR-NE CUTOFF	1	None	13.74	Playground	b	DPW & Parks	Appx. D	✓	GR 5000
Indian Hill Park	CITY OF WORCESTER SCHOOL DEPT	165	ARARAT ST	1	None	3.89	Park		DPW & Parks	Appx. D	✓	SFR 7000
Indian Lake Beach	CITY OF WORCESTER INDIAN LAKE PARK	34	SHERBURNE AVE	1	None	1.76	Beach		DPW & Parks	Appx. D	✓	GR 5000
Kendrick Field	CITY OF WORCESTER	7	BROOKS ST	1	None	14.98	Field		DPW & Parks	Appx. D	✓	S-2FR 7000
Morgan Landing	CITY OF WORCESTER MORGAN PARK	550	GROVE ST	1	None	2.89	Park	a	DPW & Parks	Appx. D	✓	SFR 7000
Salisbury Park	CITY OF WORCESTER SALISBURY PK	26	MASSACHUSETTS AVE	1	None	11.98	Park		DPW & Parks	Appx. D	✓	SFR 7000
Shore Park, Shore Drive	CITY OF WORCESTER	85	SHORE DR	1	None	7.04	Park	a	DPW & Parks	Appx. D	✓	SFR 7000
Tacoma Street Playground	CITY OF WORCESTER PARKS DEPT	285	TACOMA ST	1	None	18.90	Playground	a	DPW & Parks	Appx. D	✓	S-2FR 7000
Wetherell Estate (Duffy Field)	CITY OF WORCESTER	55	NEWTON AVE	1	None	6.78	Park		DPW & Parks	Appx. D	✓	SFR 7000
Bell Hill Park	CITY OF WORCESTER PARKS DEPT	190	BELMONT ST	2	None	23.12	Park		DPW & Parks	Appx. D	✓	GR 5000
Betty Price Playground	CITY OF WORCESTER CITY MANAGER	69	LAUREL ST	2	None	0.48	Playground		DPW & Parks	Appx. D	✓	GR 5000
Burncoat Park	CITY OF WORCESTER	70	NORTH PKWY	2	None	25.94	Park		DPW & Parks	Appx. D	✓	SFR 7000
City Hall Common	CITY OF WORCESTER PARKS DEPT	99	FRONT ST	2	None	4.37	Park		DPW & Parks	Appx. D	✓	GBU 6-1 Max FAR Res
Cristoforo Colombo Park	CITY OF WORCESTER PARKS DEPT	180	SHREWSBURY ST	2	None	22.95	Park	a	DPW & Parks	Appx. D	✓	GR 5000
Dodge Park	CITY OF WORCESTER DODGE PARK	81	RANDOLPH RD	2	None	9.09	Park		DPW & Parks	Appx. D	✓	SFR 7000
Downtown Dog Park		350	GREEN ST	3	None	0.17	Park		DPW & Parks	Appx. D	✓	
Fairmont Park	CITY OF WORCESTER FAIRMONT PARK	22	HEMANS ST	2	None	0.92	Park		DPW & Parks	Appx. D	✓	GR 5000
Grant Square	CITY OF WORCESTER GRANT SQUARE	21	NORTHAMPTON ST	2	None	1.66	Park	c	DPW & Parks	Appx. D	✓	GR 5000
Green Hill Park (+Triniky)	CITY OF WORCESTER PARKS DEPT	15-75	GREEN HILL PKWY	2	GWLT	464.98	Park	a/d	DPW & Parks	Appx. D	✓	GR 5000 - SFR 7000
Harrington Field	CITY OF WORC HARRINGTON FIELD	720	FRANKLIN ST	2	None	6.17	Field		DPW & Parks	Appx. D	✓	S-2FR 7000
Holland Rink Playground	CITY OF WORCESTER PARKS DEPT	441	LINCOLN ST	2	None	3.89	Playground		DPW & Parks	Appx. D	✓	SFR 7000
Holmes Street	CITY OF WORCESTER HOLMES FIELD	201	PLANTATION ST	2	None	7.96	Park	a	DPW & Parks	Appx. D	✓	S-2FR 7000
Institute Park	CITY OF WORCESTER	82	SALISBURY ST	2	None	44.86	Park		DPW & Parks	Appx. D	✓	S-2FR 7000
Korean War Memorial	WORCESTER REDEVELOPMENT AUTHORITY	52	FOSTER ST	2	None	0.44	Park		DPW & Parks	Appx. D	✓	GBU 6-1 Max FAR Res
Lake View Playground	CITY OF WORCESTER	0	COBURN AVE	2	None	1.02	Playground		DPW & Parks	Appx. D	✓	S-2FR 7000
Ramshorn Island	CITY OF WORCESTER RAMSHORN ISL	422	BELMONT ST	2	None	1.54	Park		DPW & Parks	Appx. D	✓	LBU 1-1 Max FAR Res
Shale Street Playground	CITY OF WORCESTER			2		0.79	Park		DPW & Parks	Appx. D	✓	
Lake Park	CITY OF WORCESTER		HAMILTON ST & LAKE AVE	3	None	74.25	Park		DPW & Parks	Appx. D	✓	S-2FR 7000
Ball Property	WORCESTER CONSERVATION COMMISSION	59	DANE AVE	3	GWLT	15.90	Park	a	DPW & Parks	Appx. D	✓	SFR 7000
Banis Street Playlot	CITY OF WORCESTER	79	HOLGHTON ST	3	None	0.47	Playground		DPW & Parks	Appx. D	✓	GR 5000
Blackstone Valley Gateway Park	MA DEPT OF / CITY OF WORC PARKS DEPT	1-75	MCKEON RD	3	None	30.05	Park		DPW & Parks	Appx. D	✓	GR 5000 + LM 2-1 Far Biz
Blithewood Park	CITY OF WORCESTER SCHOOL DEPT	10	BUTHEWOOD AVE	3	None	3.47	Park		DPW & Parks	Appx. D	✓	SFR 7000
Greenwood Park	CITY OF WORCESTER PARKS DEPT	14	FORSBERG ST	3	None	14.08	Park	a	DPW & Parks	Appx. D	✓	SFR 7000
Mulcahy Field	CITY OF WORCESTER MULCAHY FLD	158	DORCHESTER ST	3	None	3.42	Field		DPW & Parks	Appx. D	✓	GR 5000
Oakland Heights Playground	CITY OF WORCESTER	26	PARK HILL RD	3	None	1.47	Playground		DPW & Parks	Appx. D	✓	SFR 7000
Providence Street Playground	CITY OF WORCESTER SCHOOL DEPT	239	PROVIDENCE ST	3	None	4.61	Playground		DPW & Parks	Appx. D	✓	S-2FR 7000
Vernon Hill Park	CITY OF WORCESTER	150	VERNON ST	3	None	15.15	Park	a	DPW & Parks	Appx. D	✓	GR 5000

a. Massachusetts Division of Conservation Services PARK or LAND

b. Massachusetts Division of Conservation Services Common Backyards

c. 319 Water Quality

d. Massachusetts Historical Commission

e. Massachusetts Department of Conservation & Recreation Trails

Park Managed Properties												
NAME OF PARCEL	ASSESSORS OWNERSHIP	No.	STREET	DISTRICT	CR STATUS	ACREAGE	RECREATION USE TYPE	GRANT FUNDING	MANAGEMENT	CONDITION	PUBLIC ACCESS	ZONING TYPE
Cookson Field	CITY OF WORCESTER COOKSON FLD	103	CLAY ST	4	None	18.93	Property		DPW & Parks	Appx. D	✓	S-2FR 7000
Crompton Park	CITY OF WORCESTER CROMPTON PARK	47	QUINSIGAMOND AVE	4	None	12.42	Park	a	DPW & Parks	Appx. D	✓	GR 5000
Elm Park	CITY OF WORCESTER	121	RUSSELL ST	4-5	None	19.38	Park	a	DPW & Parks	Appx. D	✓	S-2FR 7000
Harry Sherry Field	CITY OF WORCESTER	380	CAMBRIDGE ST	4	None	4.89	Field	a	DPW & Parks	Appx. D	✓	LBV 1-1 Max FAR Res
Oread Castle Park	CITY OF WORCESTER PARKS DEPT	20	ALDEN ST	4	None	3.24	Park		DPW & Parks	Appx. D	✓	GR 5000
University Park	CITY OF WORCESTER CRYSTAL PARK	965	MAIN ST	4	None	14.27	Park	a	DPW & Parks	Appx. D	✓	GR 5000
West Boylston Drive		149	WEST BOYLSTON	4	None	4.19	Property					
Winslow and Pleasant	CITY OF WORCESTER PARKS DEPT	374	PLEASANT ST	4	GWLT	0.55	Playground	a	DPW & Parks	Appx. D	✓	GBU 3-1 Max FAR Res
Apricot Street Playground	CITY OF WORCESTER	0	APRICOT ST	5	None	2.32	Playground		DPW & Parks	Appx. D	✓	S-2FR 7000
Bailey-Prouty Playground	FASSETT,JEANNE MARIE TRUSTEE	89	PROUTY LN	5	None	3.74	Parks		DPW & Parks	Appx. D	✓	Airport District
Beaver Brook Park	CITY OF WORCESTER PARKS DEPT		MANN CHANDLER ST	5	None	18.08	Park	a	DPW & Parks	Appx. D	✓	GBU 4-1 FAR Res
Bennett Field	CITY OF WORCESTER BENNETT FIELD	1258	MAIN ST	5	None	5.63	Field		DPW & Parks	Appx. D	✓	SFR 7000
Cascade Park	CITY OF WORCESTER	105-151	CATARACT ST	5	None & GWLT	69.06	Park		DPW & Parks	Appx. D	✓	SFR 7000
Coes Knife Parks: Coes Knife	CITY OF WORCESTER CITY MANAGER	72	COES ST	5	None	4.32	Property		DPW & Parks	Appx. D	✓	LMU 1-1 Far Biz
Coes Knife Parks: Coes Pond Beach	CITY OF WORCESTER	200	MILL ST	5	None	1.67	Beach		DPW & Parks	Appx. D	✓	SFR 7000
Coes Knife Parks: Knights of Columbus	CITY OF WORCESTER	44	CIRCUIT AVE NORTH	5	GWLT	8.36	Field	a	DPW & Parks	Appx. D	✓	SFR 7000
Columbus Park	CITY OF WORCESTER	10	CIRCUIT AVE WEST	5	None	8.81	Park		DPW & Parks	Appx. D	✓	SFR 7000
Elm Park (Newton Hill)	CITY OF WORCESTER	339	HIGHLAND ST	5	None	39.00	Park	d/e	DPW & Parks	Appx. D	✓	S-2FR 7000
Farber Field	CITY OF WORCESTER	90	CAMELOT DR	5	None	3.15	Field		DPW & Parks	Appx. D	✓	SFR 7000
Hadwen Park	CITY OF WORCESTER HADWEN PARK	19	HEARD ST	5	None	58.09	Park		DPW & Parks	Appx. D	✓	SFR 7000
Logan Field	CITY OF WORCESTER	539	MILL ST	5	None	11.33	Field		DPW & Parks	Appx. D	✓	SFR 7000
Rockwood Field	CITY OF WORCESTER	540	CHANDLER ST	5	None	15.53	Field	a	DPW & Parks	Appx. D	✓	Colleges & Universities
Ty Cobb	CITY OF WORCESTER CITY MANAGER	67	JAMES ST	5	None	12.20	Field		DPW & Parks	Appx. D	✓	GMU 1-1 FAR Biz
				TOTAL ACRES			1295					
62 PROPERTIES												

a. Massachusetts Division of Conservation Services PARK or LAND

b. Massachusetts Division of Conservation Services Common Backyards

d. Massachusetts Historical Commission
e. Massachusetts Department of Conservation & Recreation Trails

State Properties						
NAME OF PARCEL	ASSESSORS OWNERSHIP	STREET	DISTRICT	CR STATUS	ACREAGE	Use
DWH Parcel	COMM OF MASS MENTAL HEALTH		0	GWLT	9.60	
Pernet Family Health Center Garden	COMM OF MASS HIGHWAY DEPT	MILLBURY ST	4	None	0.58	
Quinsigamond State Park - Lake Park	COMM OF MASS ENVIRONMENTAL MNGT	LAKE AVE	3	None	23.25	
Quinsigamond State Park - Regatta Point	COMM OF MASS ENVIRONMENTAL MNGT	LAKE AVE NORTH	2	None	9.55	
4 PROPERTIES						TOTAL ACRES*
*NOTE: Acreage does NOT reflect Open Space, only total property size						42.98

SECTION

5

Public School Properties

NAME OF PARCEL	ASSESSORS OWNERSHIP	No.	STREET	DISTRICT	CR STATUS	Acreage	Use	Garden
Burncoat St. Preparatory	CITY OF WORCESTER SCHOOL DEPT	526	BURNCOAT ST	1	None	1.67		
Clark St. Developmental Learning	CITY OF WORCESTER SCHOOL DEPT	280	CLARK ST	1	None	16.71		
Flagg St.	CITY OF WORCESTER SCHOOL DEPT	115	FLAGG ST	1	None	9.96		
Forest Grove Middle & Francis McGrath Elementary	CITY OF WORCESTER SCHOOL DEPT	495	GROVE ST	1	None	28.78		
Greendale Head Start	CITY OF WORCESTER SCHOOL DEPT	130	LEEDS ST	1	None	1.02		School
Midland St.	CITY OF WORCESTER SCHOOL DEPT	18	MIDLAND ST	1	None	0.60		
Nelson Place	CITY OF WORCESTER SCHOOL DEPT	35	NELSON PL	1	None	9.61		
Norrbach Ave.	CITY OF WORCESTER SCHOOL DEPT	44	MALDEN ST	1	None	5.81		
School Shop	ABBY KELLEY FOSTER CHARTER		0 NEW BOND ST	1	None	7.23		
Thorndyke Rd	CITY OF WORCESTER SCHOOL DEPT	30	THORNDYKE RD	1	None	5.34		
Worcester Arts Magnet	CITY OF WORCESTER SCHOOL DEPT	321	SAINT NICHOLAS AVE	1	None	10.22		
Belmont Street Community School	CITY OF WORCESTER SCHOOL DEPT	170	BELMONT ST	2	None	5.99		School
Grafton Street School	CITY OF WORCESTER SCHOOL DEPT	311	GRAFTON ST	2	None	1.17		School
North High	CITY OF WORCESTER SCHOOL DEPT	150	HARRINGTON WAY	2	None	19.23		School
Worcester Technical High School	CITY OF WORCESTER SCHOOL DEPT	1	SKYLINE DR	2	None	20.25		School
Burncoat Middle & High Schools	CITY OF WORCESTER SCHOOL DEPT	135	BURNCOAT ST	2	None	33.52		
City View Discovery	CITY OF WORCESTER SCHOOL DEPT	0	EASTERN AVE	2	None	4.80		
Harlow	CITY OF WORCESTER SCHOOL DEPT	15	HARLOW ST	2	None	0.68		
Lake View	CITY OF WORCESTER SCHOOL DEPT	133	COBURN AVE	2	None	1.42		
Wawecus Rd.	CITY OF WORCESTER SCHOOL DEPT	20	WAVECUS RD	2	None	4.36		
Lincoln St.	CITY OF WORCESTER SCHOOL DEPT	549	LINCOLN ST	2	None	6.52		
Quinsigamond	CITY OF WORCESTER SCHOOL DEPT	14	BLACKSTONE RIVER RD	3	None	2.42		
Rice Square	CITY OF WORCESTER SCHOOL DEPT	76	MASSASOIT RD	3	None	2.18		
Roosevelt	CITY OF WORCESTER SCHOOL DEPT	1006	GRAFTON ST	3	None	9.09		
The Gerald Creamer Center	CITY OF WORCESTER SCHOOL DEPT	120	GRANITE ST	3	None	1.98		
Union Hill	CITY OF WORCESTER SCHOOL DEPT	1	CHAPIN ST	3	None	1.37		
Vernon Hill	CITY OF WORCESTER SCHOOL DEPT	211	PROVIDENCE ST	3	None	5.37		
Worcester East Middle	CITY OF WORCESTER SCHOOL DEPT	420	GRAFTON ST	3	None	1.99		
Canterbury St. Magnet	CITY OF WORCESTER SCHOOL DEPT	129	CANTERBURY ST	4	None	0.97		
Chandler Elementary School	CITY OF WORCESTER SCHOOL DEPT	114	CHANDLER ST	4	None	0.79		School
Claremont / Woodland Academy	CITY OF WORCESTER SCHOOL DEPT	15	CLAREMONT ST	4	None	2.07		
Durkin Administration Building	CITY OF WORCESTER SCHOOL DEPT	20	IRVING ST	4	None	0.90		
Elm Park Community	CITY OF WORCESTER SCHOOL DEPT	33	NORTH ASHLAND ST	4	None	4.22		Community
Fanning Learning	CITY OF WORCESTER SCHOOL DEPT	24	CHATHAM ST	4	None	0.96		School
Goddard School of Science & Technology	CITY OF WORCESTER SCHOOL DEPT	14	RICHARDS ST	4	None	2.06		School
Jacob Hiatt Elementary School	CITY OF WORCESTER SCHOOL DEPT	770	MAIN ST	4	None	0.70		School
Jacob Hiatt Magnet	CITY OF WORCESTER SCHOOL DEPT	768	MAIN ST	4	None	0.50		
University Park Campus School	CITY OF WORCESTER	12	FREELAND ST	4	None	0.68		School
Woodward Day	SOCIA NANCY A TRUSTEE	190	FREMONT ST	4	None	0.41		
Chandler Magnet	CITY OF WORCESTER SCHOOL DEPT	525	CHANDLER ST	5	None	21.15		School
Columbus Park Elementary School	CITY OF WORCESTER SCHOOL DEPT	75	LOVELL ST	5	None	2.48		School
Doherty Memorial High School	CITY OF WORCESTER SCHOOL DEPT	299	HIGHLAND ST	5	None	23.77		School
Foley Athletic Complex	CITY OF WORCESTER SCHOOL DEPT	50	ABBOTT ST	5	None	14.09		
Hartwell Learning Center	CITY OF WORCESTER SCHOOL DEPT	1407	MAIN ST	5	None	4.40		
Heard St. Discovery Academy	CITY OF WORCESTER SCHOOL DEPT	200	HEARD ST	5	None	5.51		School
May Street School	CITY OF WORCESTER SCHOOL DEPT	275	MAY ST	5	None	2.02		School
Mill Swan A & B Head Start	CITY OF WORCESTER SCHOOL DEPT	337	MILL ST	5	None	6.04		School
South High School	CITY OF WORCESTER SCHOOL DEPT	170	APRICOT ST	5	None	43.31		School
Tatnuck Magnet	CITY OF WORCESTER SCHOOL DEPT	1083	PLEASANT ST	5	None	3.65		
West Tatnuck	CITY OF WORCESTER SCHOOL DEPT	300	MOWER ST	5	None	33.60		
50 PROPERTIES	*NOTE: Acreage does NOT reflect Open Space, only total property size						TOTAL ACRES*	393.59

Worcester Conservation Commission Properties (At present, properties are largely unimproved and not actively managed.)

NAME OF PARCEL	ASSESSORS OWNERSHIP	STREET	DISTRICT	CR STATUS	ACREAGE	RECREATION USE TYPE	GRANT FUNDING	MANAGEMENT	CONDITION	PUBLIC ACCESS	ZONING TYPE
1 Country Club Blvd.	WORCESTER CONSERVATION COMMISSION	COUNTRY CLUB BLVD	1	None	0.30	Passive		City	Unimproved	✓	S-2FR 7000
105 Wayside Rd.	WORCESTER CONSERVATION COMMISSION	WAYSIDE RD	1	None	3.33	Passive		City	Unimproved	✓	SFR 7000
55 White Ave	WORCESTER CONSERVATION COMMISSION	WHITE AVE	1	None	1.05	Passive		City	Unimproved	✓	SFR 7000
Aroostook Street	WORCESTER CONSERVATION COMMISSION	AROOSTOOK ST	1	None	0.75	Passive		City	Unimproved	✓	SFR 7000
Chester St	WORCESTER CONSERVATION COMMISSION	CHESTER ST	1	None	4.30	Passive		City	Unimproved	✓	SFR 7000
Darnell Road	WORCESTER CONSERVATION COMMISSION	DARNELL RD	1	None	2.40	Passive		City	Unimproved	✓	SFR 7000
Forest St.	WORCESTER CONSERVATION COMMISSION	FOREST ST	1	None	0.56	Passive		City	Unimproved	✓	SFR 10000
Governors St.	WORCESTER CONSERVATION COMMISSION	BANISTER-GOVERNORS ST	1	None	2.56	Passive		City	Unimproved	✓	SFR 7000
Grove Street	WORCESTER CONSERVATION COMMISSION	GROVE ST	1	None	0.21	Passive		City	Unimproved	✓	SFR 10000
Lindberg Abutter	WORCESTER CONSERVATION COMMISSION	BRATTLE ST	1	None	0.47	Passive		City	Unimproved	✓	SFR 7000
Winter Hill Preserve	WORCESTER CONSERVATION COMMISSION	VENUS DR	1	None	0.14	Passive		City	Unimproved	✓	SFR 7000
240 Coburn Ave	WORCESTER CONSERVATION COMMISSION	COBURN AVE	2	None	0.52	Passive		City	Unimproved	✓	S-2FR 7000
88 Anna St.	WORCESTER CONSERVATION COMMISSION	ANNA ST	2	None	4.29	Passive		City	Unimproved	✓	S-2FR 7000
Belmont St.	WORCESTER CONSERVATION COMMISSION	BELMONT ST	2	None	0.15	Passive		City	Unimproved	✓	GBU 2-1 FAR Res
Dallas St.	WORCESTER CONSERVATION COMMISSION	NONQUIT-EMPIRE ST	2	None	15.98	Passive		City	Unimproved	✓	S-2FR 7000
Harrington Way	WORCESTER CONSERVATION COMMISSION	HARRINGTON WAY	2	None	8.55	Passive		City	Unimproved	✓	SFR 7000
108 Commonweath Ave.	WORCESTER CONSERVATION COMMISSION	COMMONWEALTH AVE	3	None	0.12	Passive		City	Unimproved	✓	S-2FR 7000
20 Echo Street	WORCESTER CONSERVATION COMMISSION	ECHO ST	3	None	0.78	Passive		City	Unimproved	✓	SFR 7000
25 Svenson Ave	WORCESTER CONSERVATION COMMISSION	SVENSON AVE	3	None	0.12	Passive		City	Unimproved	✓	SFR 7000
251 Providence St.	WORCESTER CONSERVATION COMMISSION	PROVIDENCE ST	3	None	4.25	Passive		City	Unimproved	✓	S-2FR 7000
73 St Louis Street	WORCESTER CONSERVATION COMMISSION	SAINT LOUIS ST	3	None	0.45	Passive		City	Unimproved	✓	S-2FR 7000
8 A Crest Ave	WORCESTER CONSERVATION COMMISSION	CREST AVE	3	None	0.11	Passive		City	Unimproved	✓	SFR 7000
Board Meadow Brook	WORCESTER CONSERVATION COMMISSION	SOUTH WORCESTER	3	GWLT	144.78	Passive		City	Trails	✓	SFR 7000 + S-2FR 7000
Ellen St.	WORCESTER CONSERVATION COMMISSION	MARGIN-ELLEN-NILES ST	3	None	4.56	Passive		City	Unimproved	✓	SFR 7000
Lake Ave	WORCESTER CONSERVATION COMMISSION	LAKE AVE	3	None	0.44	Passive		City	Unimproved	✓	S-2FR 7000
Lorenzo St	WORCESTER CONSERVATION COMMISSION	LORENZO ST	3	None	2.23	Passive		City	Unimproved	✓	S-2FR 7000
Park Hill Road	WORCESTER CONSERVATION COMMISSION	PARK HILL RD	3	None	4.05	Passive		City	Unimproved	✓	SFR 7000
Perkins Farm	WORCESTER CONSERVATION COMMISSION	JOLMA RD-GRAFTON ST	3	None	78.43	Passive		City	Trails	✓	SFR 7000
St Anthony's St	WORCESTER CONSERVATION COMMISSION	GUSTAVUS AVE	3	None	0.79	Passive		City	Unimproved	✓	S-2FR 7000
St Anthony's Street	WORCESTER CONSERVATION COMMISSION	GUSTAVUS AVE	3	None	2.72	Passive		City	Unimproved	✓	S-2FR 7000
41 Dolly Drive	WORCESTER CONSERVATION COMMISSION	DOLLY DR	3	None	0.58	Passive		City	Unimproved	✓	SFR 7000
10 Westview Road	WORCESTER CONSERVATION COMMISSION	WESTVIEW RD	5	None	2.77	Passive		City	Unimproved	✓	SFR 7000
42 Westview Road	WORCESTER CONSERVATION COMMISSION	WESTVIEW RD	5	None	0.52	Passive		City	Unimproved	✓	SFR 7000
50 Chamberlain Parkway	WORCESTER CONSERVATION COMMISSION	CHAMBERLAIN PKWY	5	None	0.31	Passive		City	Unimproved	✓	SFR 7000
551 R. Chandler St.	WORCESTER CONSERVATION COMMISSION	CHANDLER ST	5	None	0.34	Passive		City	Unimproved	✓	SFR 7000
66 Rockrimmon Rd.	WORCESTER CONSERVATION COMMISSION	ROCKRIMMON RD	5	None	2.23	Passive		City	Unimproved	✓	SFR 7000
Coos Reservoir Shoreline	WORCESTER CONSERVATION COMMISSION	SOUTHER DR	5	GWLT	7.65	Passive		City	Unimproved	✓	SFR 7000
Dawson Rd	WORCESTER CONSERVATION COMMISSION	HOOSAC ST-DAWSON RD	5	None	63.39	Passive		City	Trails	✓	SFR 7000
Dixon Avenue South	WORCESTER CONSERVATION COMMISSION	DIXON AVE SOUTH	5	None	0.48	Passive		City	Unimproved	✓	SFR 7000
Iowa St.	WORCESTER CONSERVATION COMMISSION	IOWA ST	5	None	0.97	Passive		City	Unimproved	✓	SFR 7000
Mooreland Woods	WORCESTER CONSERVATION COMMISSION	MORELAND ST	5	None	20.99	Passive		City	Trails	✓	SFR 7000
Parson's Hill	WORCESTER CONSERVATION COMMISSION	PARSONS HILL DR	5	None	1.69	Passive		City	Unimproved	✓	S-2FR 7000
Patch Reservoir	WORCESTER CONSERVATION COMMISSION	GLENDALE ST	5	None	6.36	Passive		City	Unimproved	✓	SFR 7000

*NOTE: Acreage does NOT reflect Open Space, only total property size

TOTAL ACRES

397.68

Auburn Conservation Commission Properties						
NAME OF PARCEL	ASSESSORS OWNERSHIP	No.	STREET	DISTRICT	CR STATUS	Acreage
Leesville Pond	TOWN OF AUBURN CONSERVATION COMMISS		WEBSTER ST	5	None	17.92

City Owned Properties						
NAME OF PARCEL	ASSESSORS OWNERSHIP	No.	STREET	DISTRICT	CR STATUS	Acreage
Booth Apartments Garden	WORCESTER HOUSING AUTHORITY		LINCOLN ST	1	None	7.97
Roberto Clemente Playground	WORCESTER HOUSING AUTHORITY		CONSTITUTION AVE	1	None	13.95
Lincoln Park Tower Garden	WORCESTER HOUSING AUTHORITY		LAKE AVE	2	None	4.96
Worcester Public Library	CITY OF WORCESTER PUBLIC LIBRARY		SALEM SQ	2	None	1.50
CROW HILL	CITY OF WORCESTER		DARTMOUTH-CLARENDON ST	2	GWLT	27.99
Coal Mine Brook II	CITY OF WORCESTER DPW		PLANTATION ST	2	GWLT	5.29
Greenwood Gardens	WORCESTER HOUSING AUTHORITY		GREENWOOD ST	3	None	4.59
Curran Apartments Garden	WORCESTER HOUSING AUTHORITY		PROVIDENCE ST	3	None	3.31
Senior Community Center Garden	CITY OF WORCESTER SENIOR CENTER		PROVIDENCE ST	3	None	2.42
BROAD MEADOW BROOK	CITY OF WORCESTER/DPW		GRANITE ST	3	None	95.90
Bailin	CITY OF WORCESTER		BAILIN DR	3	None	4.62
Hawley Street Garden	CITY OF WORC EOEND		HAWLEY ST	4	None	0.14
2 Lafayette Street	WORCESTER HOUSING AUTHORITY		LAFAYETTE ST	4	None	0.24
Ryan Ornamental	CITY OF WORC TAX TITLE CUSTODIAN		SUTTON LN	5	GWLT	1.90
Water Department Parcel	CITY OF WORCESTER WATER DEPT		GODDARD MEMORIAL DR	5	GWLT	8.97
Parson's Cider Mill	CITY OF WORCESTER		GODDARD MEMORIAL DR	5	GWLT	18.13
PATCHES RESERVOIR	CITY OF WORCESTER CITY MANAGER		MILL ST	5	None	54.38
Sherer Trail	CITY OF WORCESTER		MONTICELLO DR	5	None	14.64
Cascade East	CITY OF WORCESTER		CATARACT ST	5	GWLT	31.57
GOD'S ACRE ST.	AIRPORT INDUSTRIAL PARK		SWAN AVE	5	None	132.53
20 PROPERTIES	*NOTE: Acreage does NOT reflect Open Space, only total property size			TOTAL ACRES		413.08
						9 Comm Gardens

Greater Worcester Land Trust Properties						
NAME OF PARCEL	ASSESSORS OWNERSHIP	No.	STREET	DISTRICT	CR STATUS	Acreage
Kinney Woods				0	Holden Con Com	53.22
BOVENZI PARK	GREATER WORCESTER LAND TRUST		SUNRISE AVE & CORINTH AVE	1	MASS	84.47
Brattle St.	GREATER WORCESTER LAND TRUST		BRATTLE ST	1	None	0.59
LINDBERG	GREATER WORCESTER LAND TRUST		BRATTLE ST	1	MASS	38.13
NICK'S WOODS	GREATER WORCESTER LAND TRUST		GROVE ST	1	GHPC	59.89
PROSPECT HILL	GREATER WORCESTER LAND TRUST		HOWATSON WAY	1	None	3.74
Sargent's Brook Property	GREATER WORCESTER LAND TRUST		GROVE ST	1	None	2.61
1551 Main St.	GREATER WORCESTER LAND TRUST INC		MAIN ST	5	None	0.28
180 South Flagg Street	GREATER WORCESTER LAND TRUST		SOUTH FLAGG ST	5	None	0.16
BRIGHAM RD. PARCEL	GREATER WORCESTER LAND TRUST		BRIGHAM RD	5	None	2.97
CASCADE WEST & WATERS	GREATER WORCESTER LAND TRUST		MOVER- OLEAN ST	5	None & WORC	149.99
Coe's Reservoir Shoreline Connector	CITY OF WORCESTER		CIRCUIT AVE NORTH	5	GWLT	0.26
Curtis Pond Parcel	GREATER WORCESTER LAND TRUST		STAFFORD ST	5	None	0.14
KETTLE BROOK & EASEMENT	GREATER WORCESTER LAND TRUST		MERRIDALE-LUDLOW ST	5	None	15.55
Marois Property	GREATER WORCESTER LAND TRUST		GODDARD MEMORIAL DR	5	None	26.93
Sherer Trail	GREATER WORCESTER LAND TRUST INC		SPRING LN	5	None	1.55
Tetasset Ridge	GREATER WORCESTER LAND TRUST INC		ESPER AVE	5	WORC	17.01
Tory Fort Lane Parcel	GREATER WORCESTER LAND TRUST		DAWSON RD	5	None	0.59
18 PROPERTIES	*NOTE: Acreage does NOT reflect Open Space, only total property size			TOTAL ACRES		458.07

Mass Audubon Society Properties						
NAME OF PARCEL	ASSESSORS OWNERSHIP	No.	STREET	DISTRICT	CR STATUS	Acreage Use Garden
20R Woodcliffe Ave	MASSACHUSETTS AUDUBON SOCIETY INC		WOODCLIFFE AVE	3	None	1.12
4 Crest Ave.	MASSACHUSETTS AUDUBON SOCIETY INC		CREST AVE	3	None	3.29
428 Massasoit Rd.	MASSACHUSETTS AUDUBON SOCIETY INC		MASSASOIT RD	3	None	0.29
7 Hjelm Ave.	MASSACHUSETTS AUDUBON SOCIETY INC		HJELM AVE	3	None	0.11
7 Hjelm Rd.	MASSACHUSETTS AUDUBON SOCIETY INC		HJELM AVE	3	None	7.89
8 Sprague Ln.	MASSACHUSETTS AUDUBON SOCIETY INC		SPRAGUE LN	3	None	1.78
Beckland	MASSACHUSETTS AUDUBON SOCIETY INC		BECKLAND ST	3	None	3.61
Broad Meadow Brook	MASSACHUSETTS AUDUBON SOCIETY INC		MASSASOIT RD	3	None	3.05
Broad Meadow Brook	MASSACHUSETTS AUDUBON SOCIETY INC		MASSASOIT RD	3	None	14.67
Broad Meadow Brook	MASSACHUSETTS AUDUBON SOCIETY INC		SOUTHWEST CUTOFF	3	None	2.83
Broad Meadow Brook Garden	MASSACHUSETTS AUDUBON SOCIETY INC		MASSASOIT RD	3	None	1.50
Broad Meadow Brook-- house that will go to MA	WILSON, FRANCES L		MASSASOIT RD	3	None	0.66
Dunkirk Ave	MASSACHUSETTS AUDUBON SOCIETY INC		DUNKIRK AVE	3	None	0.15
Dunkirk Ave	MASSACHUSETTS AUDUBON SOCIETY INC		DUNKIRK AVE	3	None	0.06
Park Hill Rd.	MASSACHUSETTS AUDUBON SOCIETY INC		PARK HILL RD	3	None	0.40
Peter's East	MASSACHUSETTS AUDUBON SOCIETY INC		GRANITE ST	3	None	14.01
Woodcliffe Ave.	MASSACHUSETTS AUDUBON SOCIETY INC		WOODCLIFFE AVE	3	None	0.71
*NOTE: Acreage does NOT reflect Open Space, only total property size						1 Comm. Garden
17 PROPERTIES	TOTAL ACRES					56.12

Private Properties: Cemeteries & Mass Port Authority						
NAME OF PARCEL	ASSESSORS OWNERSHIP	No.	STREET	DISTRICT	CR STATUS	Acreage Use Garden
Rural	PROPRIETORS OF RURAL CEMETERY		GROVE ST	2	None	38.87
Hope	CITY OF WORCESTER HOPE CEMETERY		WEBSTER ST	5	None	196.22
Notre Dame	ROMAN CATHOLIC BISHOP OF WORCESTER		WEBSTER ST	5	None	69.42
PORT AUTHORITY PARCELS	MASSACHUSETTS PORT AUTHORITY		AIRPORT DR ROCKRIMMON RD	5	None	571.73
St. Johns	ROMAN CATHOLIC BISHOP OF WORCESTER		CAMBRIDGE ST	5	None	63.31
Swedish Cemetery Co.	SWEDISH CEMETERY CORPORATION		ISLAND RD	5	None	10.18
5 CEMETERY PROPERTIES	TOTAL ACRES					939.54
*NOTE: Acreage does NOT reflect Open Space, only total property size						

Private Properties

NAME OF PARCEL	ASSESSORS OWNERSHIP	No.	STREET	DISTRICT	CR STATUS	Acreage	Use	Garden
Parsons Hill Associates								
Elm Park Daycare	ELM PARK COMMUNITY CHILD CARE		HIGHLAND ST	0	WORC	12.04		School
Wayside Rd	SPEIGHT,AUGUSTER JR + ESTELLA		ERIE AVE	1	None	0.35	ConComm	
Zion Greendale Garden	ZION EVANGELICAL LUTHERAN CHURCH		WHITMARSH AVE	1	None	0.58		Community
Alternative School At St.Casimir's	ROMAN CATHOLIC BISHOP OF WORCESTER		WAVERLY ST	2	None	0.47		
Bell Hill Community Garden	HERBIE,ALAN F + MARGUERITE M		BELMONT ST	2	None	0.24		Community
Chestnut Daycare	ELM PARK CENTER		BURNCOAT ST	2	None	0.79		School
Coal Mine Brook	MOHEGAN COUNCIL INC BOY SCOUTS		PLANTATION ST	2	GWLT	7.34	GWLT	
Green & Gold Garden	FLETCHER,ALLEN W		GREEN ST	2	None	0.09		Community
Oak Hill CDC	ROMAN CATHOLIC BISHOP OF WORCESTER		PROVIDENCE ST	2	None	0.07		Community
Seven Hills Charter Public School	LEARNING FIRST FOUNDATION INC		GAGE ST	2	None	0.96		School
204 Granite St.	NEW ENGLAND POWER COMPANY		GRANITE ST	3	None	16.26	MassAud	
414 Massasoit Rd.	NEW ENGLAND POWER COMPANY		MASSASOIT RD	3	None	114.74	MassAud	
482 Southwest Cutoff	NEW ENGLAND POWER COMPANY		SOUTHWEST CUTOFF	3	None	5.58	MassAud	
Hector Reyes Garden	LATIN AMERICAN HEALTH ALLIANCE		VERNON ST	3	None	0.17		Community
Quinsigamond Village Community Center	QUINSIGAMOND VILLAGE COMMUNITY		GREENWOOD ST	3	None	0.33		School
Senior Community Center	VHS AQUISITION SUBSIDIARY NUMBER 7.		PROVIDENCE ST	3	None	0.73		Community
Saint Francis & Therese Catholic Worker House Garden	WALKER,ROBERT C		MASON CT	4	None	0.04		Community
Neighbors To Dismas House	WHITE,KEVIN J		RICHARDS ST	4	None	0.17		Community
EAT Center	WORCESTER COMMON GROUND INC		OREAD PL	4	None	0.03		Community
Castle Street Garden	WORCESTER COMMON GROUND,INC		VALLEY ST	4	None	0.19		Community
Standish Garden	STANDISH NEIGHBORHOOD ECONOMIC		LAGRANGE ST	4	None	0.37		Community
Castle Park				4	None	0.05		Community
Ely Street Garden	REVICKI,ANNMARIE M		CASTLE ST	4	None	0.09		Community
YouthGROW Orecanic	KROSOCZKA,JOSEPH M + STEPHEN A		LAGRANGE ST	4	None	0.98		Community
Nuestro Huerto Urban Farm	IGLESIA CASA DE ORACION		SOUTHGATE ST	4	None	3.20		Community
2 South Harlem Street	JALLAH,PAUL K + BETTY		SOUTH HARLEM ST	4	None	0.09		Community
Dynamy Garden	DYNAMY INC		CEDAR ST	4	None	0.32		Community
Abby's House Garden	ABBY KELLEY FOSTER HOUSE INC		CROWN ST	4	None	0.19		Community
Castle Park	CASTLE STREET NEIGHBORHOOD		ALDEN ST	4	None	0.28		Community
Oread Place Garden	CASTLE STREET NEIGHBORHOOD		OREAD PL	4	None	0.03		Community
Southgate Garden	CITY BUILDERS LLC		GRAND ST	4	None	0.82		Community
Benefit St. Garden	MAIN SOUTH COMMUNITY		BENEFIT ST	4	None	0.13		Community
Elm Park Tower Garden	METROPOLIS-WOR0001A		PLEASANT ST	4	None	0.00		Community
Dismas House Garden	MORRILL,DAVID		RICHARDS ST	4	None	0.16		Community
Lafayette Place Garden	MOTON INC		WASHINGTON ST	4	None	0.16		Community
WOOD Garden	PILGRIM CONGREGATIONAL CHURCH		MAIN ST	4	None	0.65		Community
Worcester Central Catholic	ROMAN CATHOLIC BISHOP OF WORCESTER		MAIN ST	4	None	4.46		Community
Clark University Land	CLARK UNIVERSITY TRUSTEES OF		DOWNING ST	4	None	0.16		
Arboretum Garden	CLARK UNIVERSITY TRUSTEES OF		LOVELL ST	5	None	26.81		Community
Cook's Pond	SMITHS POND CORP		TORY FORT LN	5	GWLT	35.91	GWLT/Parks	
Farmers Mechanics League Trust	BULL,CHRISTOPHER U +		OLEAN ST	5	None	3.98		Community
KoC CR & Coes Reservoir Park	KNIGHTS OF COLUMBUS RELIGIOUS		CIRCUIT AVE NORTH	5	GWLT	7.00	GWLT / Parks	
Patch Reservoir	THE CHURCH IN WORCESTER,INC		PATCH ISLAND	5	None	0.87	ConComm	
Semillas da Vida (Seeds of Life) Garden	THE RELIGIOUS OF THE ASSUMPTION		VINEYARD ST	5	None	0.16		Community
Temple Emanuel	WORCESTER JEWISH COMMUNITY HOUSING		CHANDLER ST	5	None	2.62		Community
Worcester Youth Center	WORCESTER YOUTH CENTER INC		CHANDLER ST	5	None	0.87		School
47 PRIVATE PROPERTIES								31 Comm Gardens

*NOTE: Acreage does NOT reflect Open Space, only total property size

TOTAL ACRES

85.25

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The Massachusetts Vietnam Veteran's Memorial at Green Hill Park

The City of Worcester seeks to provide a diverse, highly accessible, and well-maintained open space and recreation system with facilities and programs that offer all residents meaningful opportunity for regular use and enjoyment. It is widely recognized that the operation of the most successful open space systems can yield great benefit to those seeking to maintain active and healthy lifestyles. In addition, maintaining and operating an inclusive high quality, and high visibility open space system can become a selling point for residents and for businesses and this can yield significant economic, social and environmental benefit to all.

COMMUNITY VISION

This section contains two primary components. First, “Description of Process” outlines the public outreach approach and process. This process helped to inform and define Worcester’s “Community Vision”. Secondly, we include a Statement of Open Space and Recreation Goals. These goals are broad-brush and intended to set up more detailed discussions contained in the subsequent Goals and Objectives and Action Plan sections of the Open Space and Recreation Plan.

A. DESCRIPTION OF PROCESS

In the Introduction, we described the level of outreach that has been undertaken during the Open Space and Recreation Plan update.

It was through this outreach process that a “Community Vision” was initially formulated and then vetted and refined through continued public outreach with key constituencies. In summary, Worcester’s Community Vision has been crafted as a direct outgrowth of this fully integrated outreach process which included the following elements:

- **Public Hearings:** As the Open Space & Recreation Plan update process was carried out, more than 12 public meetings were hosted from 2019-2021 in an effort to receive maximum input from residents, user groups, youth, open space advocates, and other interested parties.

- **Select Group Meetings:** Formal and informal meetings were conducted with a variety of other stakeholder groups (public and private) to gain insights related to current park and open space hopes, needs and concerns.

The meetings held with entities consulted included:

- Central Mass Regional Planning Commission (CMRPC)
 - Conservation Commission
 - Department of Public Works and Parks
 - Water Operations
 - Sewer Operations
 - Greater Worcester Land Trust (GWLT)
 - Green Worcester
 - Planning and Zoning
 - Worcester Arts and Culture
 - Worcester Elder Affairs
 - Worcester Planning and Regulatory Services
- **Correspondence:** In the form of e-mail and other communications received from various members of the community that were not able to attend public meetings or had additional thoughts following a particular meeting.
 - **Open Space Plan Public Survey:** Data extracted from online surveys and from hard-copy questionnaires in both English and Spanish. Slightly more than 1,000 responses were collected during the first half of 2020. The survey's objective was to identify usage patterns, to test satisfaction with outdoor recreation areas, and to evaluate unmet needs (Refer to Appendix C Public Survey Results).
 - **Park and Open Space Inventories:** A great deal was learned during the individual park and open space property site visits through observation and through constituent interactions during the visits. Visits were made to all Worcester DPW & Parks properties, and other properties of conservation and recreation interest.

The condition of all park and open space elements was observed and recorded. (See Appendix D for all Worcester DPW & Parks Site Assessment Forms).

It should be noted that the onset of the COVID-19 pandemic in March 2020 impacted dramatically the progress of the Open Space and Recreation Plan. In general, many work tasks were delayed including the park and open space inventories, ADA assessments and the second round of public engagement sessions and certain other stakeholder meetings shifted to a virtual format from a typical face to face format.



The Massachusetts Vietnam Veteran's Memorial at Green Hill Park

B. STATEMENT OF OPEN SPACE & RECREATION GOALS

No urban area can expect to prosper in the long run unless economic growth is coupled with ongoing efforts to protect, preserve, and enhance the natural environment and the recreational facilities which make it a unique and desirable place in which to live and work. It is the intent of this Open Space and Recreation Plan to establish a framework that articulates broad goals (in essence, the community's vision) followed by more specific goals, objectives and action items.

The establishment of a "Community Vision" and the corresponding goals and objectives in essence represent the desired path to the operation and maintenance of a vibrant open space system that aligns with the City's desire to achieve a sustainable civic equilibrium (environmentally, socially and economically).

The following Open Space and Recreation considerations aim to allow to formulate goals that will reinforce, and align to sustainability, and with many other current city initiatives that are aimed at making Worcester a great, and amazing place to live.



Holmes Field Playground



Blackstone gateway trail



Rockwood Field





Hadwen Park



Elm Park



Playground at the Blithewood Park

OPEN SPACE AND RECREATION CONSIDERATIONS FOR GOALS

1. Continue to strive for a balance of open space, recreation, and economic development goals in order to establish the City as a vibrant, attractive, equitable, and resilient place to work, live and play.
2. Protect, manage and enhance Worcester's cultural, historical, and natural resources.
3. Continue to provide ample opportunities for both passive and active recreation in the City, focusing especially on better access to all City assets including lakes, ponds and reservoirs while protecting existing ecosystems.
4. Begin to actively manage, and invest in capital improvements at the City's under-performing conservation properties.
5. Continue to develop community supported master planning initiatives for individual open space properties, particularly those that have had little or no investments in recent years.
6. While noting the significant gains of the past seven years, continue to explore ways to expand, and introduce facilities that support high recreational needs.
7. Continue efforts to meet the recreational needs of EJ populations that are requesting better access, quality neighborhood parks, active and passive recreational opportunities.
8. Invest in streetscape improvements that create an environment that supports people's ability to make active living choices, promote health and well-being by implementing complete street policies into the City's planning for open space linkages and recreation investment.
9. Plan ways to improve connectivity between open space, and waterfront assets, to create a network of greenway linkages that can be walked, jogged and bicycled to and from in a clear and universally accessible way.
10. Evaluate City regulations to ensure that they support various forms of social and cultural exchange and a diversity of programs sponsored by various constituents. Infusing the city with attractive, active, and connected public spaces that are easily accessible and flexible to allow for cultural expression and advancement is both desirable and attainable. Align efforts with the tenets of the Cultural Plan for Worcester, published in 2019.

11. Install branding and wayfinding that welcomes people to Worcester at key entrances to the City and to distinctive neighborhood.
12. Continue to involve individualist and organized groups in collaborative open space and recreation ventures (like education programming, outreach about existing opportunities and cleanups) for specifically targeted projects with set goals.
13. Identify more community gardens, pocket parks and playgrounds where needed and study the potential for use of underused park areas or abandoned parcels for this purpose.
14. Continue to identify opportunities to provide maximum park and open space value at a modest cost. The Betty Price Playground and Blithewood Playground initiatives are examples where relatively modest investments at these two small properties created high value. Highly engaged local residents embraced the improvements and now they help to protect and sustain the City's investment.
15. Continue to seek additional maintenance and management support/funding from a variety of sources to supplement cuts in City operational budgets.
16. Identify balanced funding for new programs and facilities that promotes the City's focus on issues related to equity, diversity, and inclusion.
17. As capital projects are planned and implemented, ensure that the improvement scopes include site features and facilities that are resilient and that will withstand the stresses and harsh impacts of a changing climate.
18. Begin to benchmark Worcester's park, recreation and open space system to other communities in New England and beyond using National Recreation and Park Association (NRPA) standards and protocols. Leverage information gained through this process to secure the funding needed to fill gaps in staffing, equipment, materials and facilities.



Mass Symphony Orchestra Family Concert at Cristoforo Colombo Park (East Park)



The Farmer's Market at the University Park



Inclusive Playground at Coes Park

ANALYSIS OF NEEDS

As described in the previous section, Worcester's "**Community Vision**" was established as an outgrowth of the community outreach process and the inventory of actual open space and park lands. This same public outreach process was the source for much of the information contained in this section, combined with additional data extracted from the Massachusetts Statewide Comprehensive Outdoor Recreation Plan (SCORP) and various publications from The Trust for Public Land (TPL).

In essence, we have identified needs based on public comments, observations, and by applying state and national recreational standards where relevant and appropriate to help identify gaps in service. The priority needs contained on the last page of this section are the direct outgrowth of this analysis of needs exercise.

This section discusses the following topics in a generally sequential manner:

- A. Needs
- B. Summary of Resource Protection Needs (Applying local and statewide measures)
- C. Summary of Community Protection Needs (Applying local and statewide measures)
- D. Management Needs and Potential Change of Use
- E. Priority Needs Summary

Serving the recreational needs of people in an urbanized environment requires an understanding of the basic relationships between supply of recreational resources and their potential users.

A person's perception of recreation and leisure activities varies with age, sex, cultural background and personal preferences. The availability of recreation-related facilities and services also significantly affect the variety and types of activities people will choose during their leisure time. While meeting every individual's specific preference is impractical, public and private agencies can ensure that sufficient opportunities for recreation exist to accommodate the majority of recreational needs in the City. It is also important to insure that mechanisms exist to monitor the changing recreational needs of the City, and to adjust the menu of resources to accommodate these changes.

A. NEEDS

A.1 NEEDS DERIVED THROUGH PUBLIC FEEDBACK

The Worcester user survey that was conducted as part of the Open Space and Recreation Plan update process yielded results that were remarkably similar to those results referenced within the statewide open space and recreation initiative surveys that are described later in this section.

Following is a summary of needs extracted from the results of the Worcester Parks, Recreation & Open Space Plan Public Survey. (Refer to Appendix C Public Survey for full report). It should be noted that over 1,005 people participated on the survey. From the survey participants, **42%** have lived in Worcester for more than 20 years (making them long-time residents), with the biggest group being **18-34** years of age, followed by a much smaller group of **5 year old and under**:

- **71%** of the survey participants selected parks, recreation and open space as very important to them.
- The majority of the participants strongly agreed that the city should protect open space, improve access to lakes and publicly available water resources.
- A third of the respondents visit a park or open space facility 1-2 times/week with a **88%** of this group prefer visiting park facilities during 6am to 9am.
- Although the majority of the participants drive to the Worcester parks and open space properties that they visit, **79.5%** of respondents believe that sidewalks are important for recreation and for travel. Related to this, walking is consistently brought out as one of the most common recreational activities pursued in the City.
- While only **33%** respondents stated that bike lanes are personally important to them, the majority of the survey participants are strongly in favor of the City providing more of them.



Rockwood Park

- In terms of park and open space ratings, participants indicated that parks were in average to good condition and they assigned open space an adequate to average rating overall.
- Half of respondents indicated that the reasons they would rarely use an open space facility was due to poor conditions (36%) or because they felt unsafe (20%). Less than a third of the [participants didn't know the locations of particular of parks or facilities (23.8%) and 9.8% found them not enjoyable or interesting.
- One third of respondents indicated that their recreational needs are being met at a good level of performance (31.37%), and 24% indicated recreational needs at an average level (24%).
- In terms of park improvements, maintenance was the most chosen improvement option (51%), followed by protecting open space (49%), restrooms (41%), walking/jogging paths (36%), then hiking trails (33%), and programming (30%) among others.



Keindrick Park

SUMMARY ANALYSIS OF CITY PARKS INVENTORY

Table 7.1a Passive Outdoor Park and Facilities

SECTION 7

Number	PARK	District	Acres	Address	Outdoor Park & Facilities Passive											
					Bathing Beach	Non-Motorized Boating	Fishing	Picnic Area	Park Buildings	Monument \ Tower	Gazebo	Band/Stand	Interpretive Signs & Kiosk	Open Space	Paths & Trails	Parking Lot
1	149 West Boylston Drive	4	4.19	149 West Boylston												
2	Apricot Street Playground	5	2.32	65 Apricot St.				1								
3	Ball Property	3	15.90	29 Dane Av.											1	
4	Banis Street Playlot	3	0.47	79 Houghton St.				1								
5	Beaver Brook Park	5	18.08	300 Chandler St.					2					1	1	2
6	Bell Hill (Chandler) Park	2	23.12	184 Belmont St.	1		1		1						1	1
7	Bennett Field	5	5.63	1258 Main St.												1
8	Betty Price Playground	2	0.48	69 Laurel St.				1			1				1	
9	Blackstone Gateway (incl. Middle River) Park	3	30.04	15 McKeon Rd.									1		1	
10	Blithewood Park	3	3.47	10 Blithewood Av.				1			1				1	1
11	Boynnton Park	5	89.25	50 Boynton Pwy				2							1	1
12	Burncoat (North) Park	2	25.94	70 North Parkway			1								1	
13	Burncoat Street Playground	1	1.26	524 Burncoat St.				1								
14	Cascades Park	5	69.06	151 Cataract St.											1	
15	City Hall Common	2	4.37	455 Main St.						6			1	1		
16	Coes Park/ Stearns Tavern	5	4.32	140 Mill St			1	1	1					1	1	2
17	Coes Reservoir Beach	5	1.67	200 Mill St.	1	1	1		1							
18	Columbus Park	5	8.81	10 Circuit Ave. West			1							1	1	
19	Cookson Field	4	18.93	103 Clay St.									1	1	1	1
20	Cristoforo Colombo (East) Park	2	22.95	180 Shrewsbury St.				1	2		1	1	1	1	1	1
21	Crompton Park	4	12.42	47 Quinsigamond Av.				1	2				1	1		1
22	Dodge Park	2	9.09	81 Randolph Rd.				1			1		1		1	
23	Downtown Dog Park	2	0.17	350 Green St.												
24	Elm Park/ Newton Hill	4	58.38	121 Russell St.				1	3	3			1	1	1	
25	Fairmont Park	2	0.92	22 Hemans St.				1								
26	Farber Field	5	3.15	90 Camelot Dr.					1							1
27	Grant Square	2	1.66	21 Northhampton St.				1						1		
28	Great Brook Valley Playground	1	13.74	33 Northeast Cutoff										1	1	2
29	Green Hill Park (incl Trinity Woods)	2	464.97	50 Sky Line Drive		1	1	7	14	3	5		1	1	1	7
30	Greenwood Park	3	14.08	14 Foresberg St.				1	3		1			1	1	1
31	Hadwen Park	5	58.09	19 Heard St			1	1	1					1	1	1
32	Harrington Field	2	6.17	720 Franklin St.					1							1
33	Harry Sherry Field (S. Worcester Playground)	4	4.89	380 Cambridge St.					2							2
34	Holland Rink Playground	2	3.89	441 Lincoln St.										1		
35	Holmes Field	2	7.96	201 Plantation St.				1			1			1	1	
36	Indian Hill Park	1	3.89	165 Ararat St.					1	1	1		1	1	1	1
37	Indian Lake Beach	1	1.76	34 Sherburne Av.	1		1		1							1
38	Institute Park	2	44.86	82 Salisbury St.			1		1	2	1	1	1	1	1	
39	Kendrick Field	1	14.98	7 Brook St.					2						1	3
40	Knights of Columbus/ Reed Field	5	8.36	44 Circuit Ave. North				1					1	1	1	1
41	Korean War Memorial	2	0.44	52 Foster St.						1						
42	Lake Park	3	74.25	600 Hamilton St.					3	1			1	1	1	2
43	Lake View Playground	2	1.02	125 Coburn Ave.										1		
44	Logan Field	5	11.32	539 Mill St					1					1	1	
45	Morgan Landing	1	2.89	580 Grove St.		1	1		1					1	1	1
46	Mulcahy Field	3	3.42	153 Dorchester St.					1							1
47	Oakland Heights Playground	3	1.47	26 Park Hill Rd.										1		
48	Oread Castle Park	4	3.24	20 Alden St.				1					1	1	1	
49	Providence St. Playground	3	4.59	239 Providence St.										1		1
50	Ramshorn Island	2	1.54	422 Belmont St.			1							1		
51	Rockwood Field	5	15.53	540 Chandler St.					6					1	1	
52	Salisbury Park	1	11.98	26 Mass. Ave						1				1	1	1
53	Shale Street Playground	2	0.79	6 Oakham St.										1		
54	Shore Park	1	7.04	85 Shore Dr.	1	1	1	1	1				1	1	1	1
55	Spillane Field	5	3.74	89 Prouty Ln.												
56	Tacoma Street Playground	1	18.90	285 Tacoma St.										1	1	1
57	Ty Cobb Park	5	12.20	67 James St.					1					1	1	
58	University (Crystal) Park	4	14.27	965 Main St.				1		2				1	1	
59	Vernon Hill Park	3	15.15	144 Providence St.					3	1				1	1	2
60	Wetherell Estate Park (Duffy Field)	1	6.78	55 Newton Ave.										1	1	
61	Winslow & Pleasant (Peace) Park	4	0.55	374 Pleasant St.										1	1	
TOTAL					4	4	12	28	56	21	13	2	14	36	37	42

Table 7.1b Active Outdoor Park and Facilities

Number	PARK	District	Dedicated Fields													Multi-Purpose							
			Baseball-Youth	Baseball-Youth Intermediate	Baseball-Adult	Softball Youth Woman	Softball Adult	Soccer Field - U-10	Soccer Field - U-12	Soccer Field - Adult	Football Field	Lacrosse Field	Rugby	Hockey Field	Baseball-Youth	Baseball-Youth Intermediate	Baseball-Adult	Softball Youth Woman	Softball Adult	Soccer Field - U-10	Soccer Field - U-12	Soccer Field - Adult	Football Field
1	149 West Boylston Drive	4																					
2	Apricot Street Playground	5																					
3	Ball Property	3																					
4	Banis Street Playlot	3																					
5	Beaver Brook Park	5	2-L				1-L				1-L												
6	Bell Hill (Chandler) Park	2								1													
7	Bennett Field	5				1																	
8	Betty Price Playground	2																					
9	Blackstone Gateway (incl. Middle River) Park	3																					
10	Blithewood Park	3	1																				
11	Boylston Park	5																					
12	Burncoat (North) Park	2																					
13	Burncoat Street Playground	1																					
14	Cascades Park	5																					
15	City Hall Common	2																					
16	Coes Park/ Stearns Tavern	5																					
17	Coes Reservoir Beach	5																					
18	Columbus Park	5																					
19	Cookson Field	4																					
20	Cristoforo Colombo (East) Park	2	1														1-L						1-L
21	Crompton Park	4																	2-L				1-L
22	Dodge Park	2																					
23	Downtown Dog Park	2																					
24	Elm Park/ Newton Hill	4																					
25	Fairmont Park	2																					
26	Farber Field	5																		1-LS	1-LS	1-LS	
27	Grant Square	2																					
28	Great Brook Valley Playground	1					1L																
29	Green Hill Park (incl. Trinity Woods)	2	1					1									1-L	1	1-L			1-L	1-L
30	Greenwood Park	3																	1			1	1
31	Hadwen Park	5			1-L																		
32	Harrington Field	2	1			1																	
33	Harry Sherry Field (S. Worcester Playground)	4	1		1																		
34	Holland Rink Playground	2																					
35	Holmes Field	2															1					1	
36	Indian Hill Park	1																1					1
37	Indian Lake Beach	1																					
38	Institute Park	2																					1-LS
39	Kendrick Field	1	1/1-L		1														1-L			1-L	1-L
40	Knights of Columbus/ Reed Field	5																				1	1
41	Korean War Memorial	2																					
42	Lake Park	3			1-L		1																
43	Lake View Playground	2																					
44	Logan Field	5			1	1-L																	
45	Morgan Landing	1																					
46	Mulcahy Field	3																		1-L			
47	Oakland Heights Playground	3																					
48	Oread Castle Park	4																					
49	Providence St. Playground	3																			1-LS	1-LS	
50	Ramshorn Island	2																					
51	Rockwood Field	5	1/1-L		1	1-L																	
52	Salisbury Park	1																					
53	Shale Street Playground	2																					
54	Shore Park	1																					
55	Spillane Field	5	1																				
56	Tacoma Street Playground	1																					
57	Ty Cobb Park	5	2			1																	
58	University (Crystal) Park	4																					
59	Vernon Hill Park	3	1-L		1-L	1/1-L																	
60	Wetherell Estate Park (Duffy Field)	1													1					1			
61	Winslow & Pleasant (Peace) Park	4																					
TOTAL			13	0	7	6	3	1	0	1	1	0	0	0	1	1	4	2	6	3	2	8	8

Footnotes

L= Sports Lighting

S= Synthetic Turf

F=Futsal

SECTION 7

Number	PARK	Multi-Purpose				Basketball Courts	Tennis Courts (outdoor only)	Tennis Courts / Pickleball	Handball	Playground	Floor Hockey	Volleyball	Dog Parks	Swimming Pools (outdoor only)	Spray Parks	Swimming Beach	Skate Parks	Ice Rinks (outdoor only)	Boat Ramp/Launch	Community Gardens	Fitness Station	Disc Golf	Golf Course
		District	Lacrosse Field	Rugby	Field Hockey																		
1	149 West Boylston Drive	4																					
2	Apricot Street Playground	5								1													
3	Ball Property	3																					
4	Banis Street Playlot	3								1													
5	Beaver Brook Park	5								2	1-L		1										
6	Bell Hill (Chandler) Park	2				1				1						1							
7	Bennett Field	5								1													
8	Betty Price Playground	2								1											1		
9	Blackstone Gateway (incl. Middle River) Park	3																					
10	Blithewood Park	3				1	1			1													
11	Boynnton Park	5																					
12	Burncoat (North) Park	2																					
13	Burncoat Street Playground	1				1	1			1													
14	Cascades Park	5																					
15	City Hall Common	2																1					
16	Coes Park/ Stearns Tavern	5								1													
17	Coes Reservoir Beach	5														1							
18	Columbus Park	5																					
19	Cookson Field	4								1													
20	Cristoforo Colombo (East) Park	2				1-L	1-L			2					1								
21	Crompton Park	4		1-L		2-L	2-L		2L	1				1									
22	Dodge Park	2																					
23	Downtown Dog Park	2											1										
24	Elm Park/ Newton Hill	4				1-L	4-L			1								1			1	1	
25	Fairmont Park	2				1				1													
26	Farber Field	5								1													
27	Grant Square	2				1				1										1			
28	Great Brook Valley Playground	1																					
29	Green Hill Park (incl. Trinity Woods)	2			1				2	3							1			1			1
30	Greenwood Park	3				1-L	2/1-L			1					1								
31	Hadwen Park	5				1-L				1													
32	Harrington Field	2				1				1													
33	Harry Sherry Field (S. Worcester Playground)	4				1			2	1										1			
34	Holland Rink Playground	2				1																	
35	Holmes Field	2						2-L		1	1												
36	Indian Hill Park	1				1-L																	
37	Indian Lake Beach	1														1							
38	Institute Park	2	1-LS		1-LS																		
39	Kendrick Field	1				1				2													
40	Knights of Columbus/ Reed Field	5		1						1													
41	Korean War Memorial	2																					
42	Lake Park	3				1																	
43	Lake View Playground	2				1				1													
44	Logan Field	5				1																	
45	Morgan Landing	1					1												1				
46	Mulcahy Field	3								1													
47	Oakland Heights Playground	3																					
48	Oread Castle Park	4				2-LF				1											1		
49	Providence St. Playground	3								1													
50	Ramshorn Island	2																					
51	Rockwood Field	5																					
52	Salisbury Park	1																					
53	Shale Street Playground	2																					
54	Shore Park	1														1							
55	Spillane Field	5								1													
56	Tacoma Street Playground	1				1																	
57	Ty Cobb Park	5																					
58	University (Crystal) Park	4				2-L				1		1-L											
59	Vernon Hill Park	3				1-L				1			1										
60	Wetherell Estate Park (Duffy Field)	1								1													
61	Winslow & Pleasant (Peace) Park	4																		1			
TOTAL			1	2	2	25	12	2	6	37	2	1	3	1	2	4	1	2	1	4	3	1	1

Footnotes

L= Sports Lighting

S= Synthetic Turf

F=Futsal

A.2 NEEDS DERIVED THROUGH OPEN SPACE & RECREATION PROPERTY INVENTORY AND MAPPING

Using the chart contained above, one can begin to compare amenities on a district and City-wide basis. Examining data from The Trust for Public Land for nearby Springfield, MA and for other US Cities, one can begin to see some trends, deficits and surpluses.

Table 7.2 Comparison Table: Acres of land, Parkland and Population

Population Estimate 2020	Total Land (acres)	Parkland* (acres)	% of Parkland to Total Land
WORCESTER			
185,301	24,648	3,723	15% approx.
SPRINGFIELD			
168,200	20,396.80	2,400	11.7% approx.
MEDIAN US City (of High Population Density)			11.7% approx.

(Public Parkland acreage includes City parks, conservation lands, state and federal parkland. Note that Private Open Space Lands owned by the Greater Worcester Land Trust, Mass Audubon and certain other entities, are not counted when using Trust for Public Land Criteria. When counting these and other Open Space Lands, Worcester contains 3,723 acres of total open space, or approximately 20.6 acres of parkland per 1,000 residents). Source Census Bureau 2010 and World Population Review 2020.)

Other comparisons between Worcester and Springfield and other density cities are as follows:

- Worcester has 11 acres of park land per 1,000 residents.
- Springfield has 13 acres of park land per 1,000 residents.
- Median US High density city (out of 18 cities) has 6.7 acres of park land per 1,000 residents.

Park Playground comparisons are summarized as follows:

- Worcester has 34 playgrounds, or 1.87 playgrounds per 10,000 residents.
- Median for US cities is 2.2 playgrounds per 10,000 residents.

Parks and Recreation Department Employees per 10,000 residents are as follows:

- Worcester has 50 employees, or 2.8 per 10,000 residents.
- Median for US cities is 5.2 employees per 10,000 residents.



Blackstone Visitors Center

Ball Diamonds: (See Category B on Table 7.1)

- Worcester has a total of 52 diamonds, or 2.8 per 10,000 residents.
- Median (in 10 US Cities) is 4 diamonds per 10,000 residents (*Includes softball, baseball and little league)

Off-Leash Dog Parks:

- Worcester has a none
- Other US cities have an average of 3.3 per 10,000 residents

Basketball Courts: (See Category C on Table 7.1)

- Worcester has a total of 26 basketball courts, or 1.4 per 10,000 residents.
- Median (in 10 US Cities) is 6.6 basketball courts per 10,000 residents

Swimming Pools: (See Category C on Table 7.1)

- Worcester has a total of 3 swimming pools centers (1 City, 2 state), or .2 per 10,000 residents.
- Median (in 10 US Cities) is 2.1 swimming pool centers per 10,000 residents.

Fig. 9 in Appendix A show a ½ mile standard around City-owned parks. And only City owned parks were designated in this way as public accessibility to other open space properties is not always obvious or consistent). The estimated percentage of population in Worcester with walkable park access is 85%. In comparison, it was estimated that in Boston 97% of the population meets the walkable park criteria.

WORCESTER LOCAL GAPS

The following summary of observations are extrapolated from Table 7.1, 7.2 and 7.3 below.

Table 7.3 Comparison Table: Acres of land, Park land and Population by District

District	Total District Area (acres)	Open Space Area (acres)	District Population (2010)
1	6,094	408	37,759
2	4,909	887	38,493
3	5,019	729	36,696
4	1,710	167	34,805
5	6,916	1,258 + 274*	35,160
Totals	24,648	3,449 + 274 = 3,723	181,045

(*From 3 parcels in the bordering towns of Paxton and Holden (Boynton Park, Cascades West and Kinney Woods. This total Parkland acreage includes developed and undeveloped land, that is mostly, but not exclusively available for public use). The chart lists population figures for 2010 based on official U.S. Census Bureau – Census 2010 data.



Hadwen Park



Beaver Brook Park



Cristoforo Colombo (East) Park



Duffy Field

- **District 1**, 83 acres of open space. The second largest district with a low total of open space acreage. It also contains the lowest per capita number of active recreation facilities (see Table 7.1) with 22 active facilities including 5 playgrounds, and 28 passive facilities.
- **District 2**, Most populated district with 2,745 more residents than District 4, being the lowest. It also contains Green Hill Park with 464.97 acres (occupying more than 50% of the open space area within the district). It should be noted that Green Hill Park is a passive park, with less than 10 active recreation facilities located within its borders. In total, District 2 appears to be a recreation facility-rich district with a total of 54 active and 61 passive facilities.
- **District 3**, 729 acres of open space. City park land of 163 acres and also lowest in active facilities per capita (only 32 total recreation facilities and just 2 soccer fields. However, this district does include the Mass Audubon property (Broad Meadow Brook).
- **District 4**, located near to the geographic and functional heart of the City. Correspondingly, it has a low total acreage of open space area per capita and it lacks space for athletic fields (with just 1 football field and a higher concentration of court facilities (18) compared to three of the four other Districts).
- **District 5**, 1,532 acres of open space. Contains the most total acreage and the most acreage of open space. It has a total of 33 recreation facilities but relatively limited court facilities.

ENVIRONMENTAL JUSTICE (EJ)

In Worcester, there is a need to improve people's awareness of existing local recreational resources (both active and passive) especially in Environmental Justice (EJ) areas (where high percentages of non-English speaking, and/or foreign born and/or low income residents live) cover a significant geographic area within the City. These EJ areas are high density and tend to be located toward the center of Worcester. With fewer park and open space assets, and with income, language and transportation barriers, this demographic tends to be less involved. There is also a need to get EJ populations to be more aware of the recreation resources that are available and to advocate for facilities that adequately meet their needs. With higher immigrant populations, EJ areas may require a different array of recreational amenities that match their cultural needs in a way that is different from prior generations of immigrants and different from those residents born and raised in this country.

Maps in Appendix A figure 2 illustrate the current open space and recreation system with the Environmental Justice population overlay. It illustrates areas where open space could be improved or new property could be acquired to better serve the demands of a growing population. Figure 9 zooms into the ½ mile radius to parks showing a neighborhood analysis of open space, community gardens and public transportation bus stops at a neighborhood level.

AGING POPULATION

The average age of Massachusetts residents is increasing and the facts illustrated in Section 03 Community Settings show Worcester's trends align to those of the state in this respect.

The trends, community feedback, and responses from the survey highlight a city-wide need to focus investments on universal access, accessible circulation, and linkages to parks and open spaces throughout.

ACCESSIBILITY

Statewide surveys show that households with a person with a disability prefer gardening and swimming. Picnic and historic sites were also popular within this group.

One in seven Massachusetts households has a member with a disability that restricts his or hers ability to use outdoor recreation areas and facilities. There is a tremendous need to design park and open space facilities and programs in a way that maximizes accessibility to this large segment (the aging and those with a disability) of the population.

A.3 NEEDS DERIVED THROUGH THE ANALYSIS OF ADDITIONAL COMMUNITY CHARACTERISTICS

Information gleaned through the public outreach process was also analyzed and grouped under four basic headings in order to further inform community needs and preferences. The four headings are as follows:

- Community Needs / Wishes
- Community Challenges
- Community Strengths / What Works
- Community Potential / Opportunities

Grouping public feedback into these four basic classifications allowed us to analyze and prioritize information and helped to develop the goals and objectives in subsequent sections of this Open Space and Recreation Plan.



Burncoat Park



Golf Course at Green Hill Park



Oread Castle Park



Elm Park

COMMUNITY NEEDS / WISHES

Stated and observed needs and wishes related to the Worcester Parks and Open Space System are listed below.

- **Improved Open Space Resource Protection and Access**, especially to recreational water bodies and their shores, for habitat protection of existing listed species (natural) and historical resources, and for general use and enjoyment of the public.
- **New Land Acquisitions**, to strengthen links between park and open space assets for conservation, for connectivity, for environmental education and for encouragement and maintenance of healthy life styles.
- **Strengthening the connectivity of the City's overall Open Space System**, through the creation of paths, construction or maintenance of new or existing sidewalks, enhancing streetscapes (making the main link-ages boulevard-like), etc.
- **Recreational Water-based Amenities**, high demand for swimming at public pool facilities and at available lakes and ponds within the City.
- **Rectangular Fields**, the demand for rectangular shaped fields far exceeds the supply of such facilities. In particular, while fields might be available to support actual games, finding a venue for a practice is reported to be difficult for many sports leagues.
- **Courts**, more basketball, badminton, volleyball, futsal, multipurpose, and handball courts are needed and/or should be renovated for better use. This is to support daily, informal use and use by organized sports leagues.
- **Dog Parks**, the concept of creating city sanctioned and formalized amenities that accommodate residents and their dogs was repeatedly raised at many of the public meeting venues.
- **Community Gardens**, according to the Worcester Regional Environmental Council (REC) and other sources, "demand for community garden space exceeds supply by a factor of three".
- **Bathroom Facilities**, the concept of making bathroom facilities available for park and open space users was also repeatedly stated. In particular, bathroom facilities would be beneficial to seniors, young children (and their parents) and to people with disabilities.
- **New Investment in Bicycle Facilities**, many participants during the update process requested improved bike trails, new/better bike connections, bicycle friendly roadway designs and the installation of bicycle racks on a more frequent basis throughout the City.

- **ADA Compliant/Universal Access**, there is a need and a demand for universally inclusive activities and facilities within parks and open space facilities.
- **Transportation Enhancements**, more bus stops and routes are desired, particularly by/for residents with disabilities and especially to and from popular parks like Green Hill Park.

Other themes that have arisen during the public input process included:

- Installation of mile markers at park and open spaces and their connections as part of healthy life style initiatives.
- Shaded benches in outdoor recreational zones for summer use.
- Handrails and other support systems on trails within some of the larger, undeveloped and typically passive open space venues.
- Increased public access to water bodies and their shores, i.e. swimming, canoeing, kayaking and fishing.
- Improved opportunities for outdoor (winter) skating, skate boarding and bicycling for youth groups.
- Introduction of more aggressive reforestation efforts within large woodland areas in response to the Asian Longhorned Beetle (ALB) infestation and damaging recent storms.

COMMUNITY CHALLENGES

Based on the public and stakeholder input and site visits:

- **Public Safety Concerns**, inadequate lighting and staffing, limited visibility, poor design (confusing layout, areas of concealment, isolation or restrictive access), and regulatory issues (too restrictive or not enough enforcement, depending on different locations).
- **Inadequate Playground Design**, often leading to misuse of facilities, declining physical conditions, maintenance difficulties, and indifference from the general public. Improper drainage (leading to stormwater management issues), grading (leading to erosion issues or non-compliant ADA and playground safety conditions) and poor location of park elements within facilities (orientation of metal slides to the south with no shading, bench locations and positions, etc.) are some examples of poor designs that have been noted.



Cristoforo Colombo (East) Park



Coes Park



University Park



Bicycle Trail at Blackstone Gateway Park



Coes Pond Park



Inclusive Playground at Coes Park

- **Inadequate Park Maintenance/Repair**, often leading to vandalism, safety concerns and lack of feeling of ownership and pride by the park users, advocates and stakeholders.
- **Facilities used for intended purposes**, can lead to misuse and disenchantment. For example, Little League fields are often used as a dog parks because they are frequently enclosed, conveniently located and because of the lack in formal facilities for dog owners and their pets.
- **Connectivity**, physical greenway connections between existing and future open spaces to unify existing resources and integrate potential open space opportunities, such as access to waterfronts, migration of wildlife and habitat enhancements.
- **Environmental concerns**, the City possesses hundreds of acres of open space that is largely undeveloped with unique and impressive natural resources. Yet, many of these open spaces lack management of fragile ecosystems. Ownership and management should be clarified and funded.

COMMUNITY STRENGTHS / WHAT WORKS

The following are examples of stated and observed community strengths, policies and approaches that currently work for Worcester Parks and Open Space System:

- Impressive range of types, sizes and wide distribution of the open space system in the City, based on the spatial analysis of open space distribution.
- Alignment of recreation programs with other public initiatives focused on building a stronger, healthier and more connected community.
- Multiple public master planning projects of individual public open space and recreation facilities that help to engage communities, build new stakeholder groups and define tailored priorities and appropriate goals and objectives for improvement.
- Models of good public-private partnerships, such as Broad Meadow Brook Wildlife Sanctuary and Greater Worcester Land Trust, and a remarkable composite of open space lands under various ownerships that have been pieced together for public use and enjoyment, and for environmental protection and conservation.
- Mixed ownership partnerships for Community gardens, largely managed by the Regional Environmental Council.

- Park and open space task forces (often associated with neighborhood groups, higher education institutions, local corporations, sports leagues etc.) that band together to undertake special clean-up events, and routine and continuous management and maintenance efforts.
- Partnerships with community based organizations including the YMCA, Boys and Girls Clubs, Youth Growth Farm and Community Development Corporations in relation to park and open space programming and infrastructure improvements.
- Partnerships with park and open space “friends” groups and other individuals that care about the environment, as observed throughout the park and open space inventory site visits, where volunteers were engaged in the removal of trash, spring clean-up efforts, sports field raking and lining efforts, lawn mowing, invasive species removals and reforestation efforts.



Example of transportation corridor refurbishment projects displaying the full array of public transportation, car pedestrian, and bicycle accommodations. (Source: The National Association of City Transportation's drawing of a Neighborhood Main Street. National Association of City Transportation).

COMMUNITY POTENTIAL / OPPORTUNITIES

Attendees at public hearings and other stakeholders identified numerous ways in which the City might enhance the overall park and open space system, including:

- Allow the Parks and Recreation Commission and the Conservation Commission the right of first refusal in relation to lands being taken for non-payment of taxes.
- Adopt the “Complete Streets” approach, where possible, for developing well integrated transportation and green corridors that provide meaningful facilities for drivers, as well as walkers/joggers and bicyclists.
- Improve access to park and open space properties by 1) enhancing site entrances; 2) creating informational systems that direct visitors to parks and open space locations; 3) providing infrastructure upgrades to public streets that link neighborhoods (curb lines, sidewalks, ramps, bicycle lanes etc.) to park and open space properties; 4) and improving/enhancing public transportation system’s routes and stops to provide better access to major park and open space properties.
- As the City embarks on upgrades to transportation corridors and roadways, improvements need to be in sync with the City of Worcester and other tree planting and maintenance policies. Viable tree planting strategies would help to create linear park conditions that enhance non-vehicular modes of transportation and also help to reforest the City in light of the recent ALB infestation which caused the loss of thousands of street trees and woodland trees.
- Water and sewer easements (often linear corridors through and between private properties) may provide potential connections to, from and between open space properties.
- In certain areas, vacant lots that have little economic potential might be converted into pocket parks and community gardens.
- In certain instances, cemeteries might be considered as potential connectors to open space and park properties.
- From a public information perspective, the creation of a single web-based clearinghouse that disseminates information about park and open space assets including locations, facilities available, access and transportation options, ADA compatible facilities and recreational water resource and access options.
- The same web-based resource system would highlight the extent of linear trail systems (bicycle and multi-use walking) and provide links to important related systems including those listed below:



Green Hill Park



Ice Skating at City Hall Common



Gateway Park

- Greater Worcester Land Trust (GWLT)
<http://www.gwlt.org/lands/index.htm>
- Mass Audubon
https://www.massaudubon.org/Nature_Connection/Sanctuaries/Broad_Meadow/index.php
- Hike Worcester
<http://www.hikeworcester.com/>
- In order to meet the needs of this diverse and important community it is necessary to undertake innovative outreach practices, perhaps in the form of workshops or “Charrettes” that engage residents in future park and open space planning and design initiatives.

Part of the efforts related to the updating of this Open Space and Recreation Plan were focused on integrating and assessing different information made available from different community groups in order to better evaluate community needs and goals. Examples of the information provided by these community groups included:

- Greater Worcester Land Trust (GWLT) contributed and helped to evaluate the Geographic Information System Mapping (GIS).
- Central Massachusetts Regional Planning Commission (CMRPC) and Worcester Regional Transportation Authority (WRTA) provided bus routes and bus stop information that was incorporated into the Fig. 9 Half-Mile Radius Maps (see Fig. 9, Appendix A).
- The Regional Environmental Council (REC) and other community garden advocates provided data that has also been included in the ½ mile Radius Maps (see Fig. 9, Appendix A), and on the inventory charts in Section 05.
- Appalachian Mountain Club (AMC) provided recreation information included in Section 05.

Despite the vast array of existing open space and recreation resources within the City, it is clear from feedback received and from observations made, that improvements to existing parks and recreation facilities are greatly valued and continue to be needed. The majority of the user survey participants favored the protection of open space lands and improvement of existing recreational facilities over the acquisition of new ones. However, lessons learned from other communities in Massachusetts which have limited open space to acquire or expand upon, makes the acquisition of vacant land (particularly in geographic areas that are underserved) important to consider as an action item identified later in this report.

Maintenance of existing recreational facilities has been a challenge for the City, due to significant reductions to the size of the dedicated park maintenance labor force (net loss of 20 positions during the past 10 years). To fill gaps, the City now relies heavily on organizations such as “friends of”, sport leagues, private and public institutions for both funding, management and maintenance to be able to sustain and balance the current active recreation demands.

It should be noted that the online survey results illustrate a spectrum of the opinion by City residents and as such, the survey is but one of many tools used to examine and illustrate the trends and opinions of the whole Worcester community.

B. SUMMARY OF RESOURCE PROTECTION NEEDS

Resource protection needs have been summarized based on results of the park and open space resource inventory effort as well as through the mapping of protected and targeted open space parcels in Worcester.

B.1 STATEMENTS OF RESOURCE PROTECTION NEEDS

- To balance use of open spaces as recreational resources and their protection as important habitats of species and natural resources.
- To actively protect and improve conservation properties and parcels. To involve the Conservation Commission, as a key custodian of such lands, and to secure funding for this purpose. Worcester also has 16 acres of Critical Natural Landscapes none of which are protected or managed as of 2013.
- To recognize significant challenges of a changing climate (such as the frequency and intensity of storms creates that create great pressure on all natural and human made systems), and implement maintenance and management protocols that protect an extensive and resilient natural system, needed to be able to buffer and recover from these climatic change challenges.
- To better manage and regulate designated floodplains, to protect their natural functions and to minimize flood hazards to the built environment.
- To restore and preserve wetlands for wildlife habitat, water supply and open space corridors. (Refer to Section 04 BioMap2 information on Critical Core Habitats and Critical Natural Landscapes).
- To add linkages between passive and active recreation areas, forming

greenways and potential bikeway and/or trail connections throughout the City as well as connections to regional systems.

- To strengthen the coalition of local preservation interests to promote public/private partnerships in preservation.
- To explore additional means for obtaining and preserving conservation and open space land besides out-right purchase, including easements, zoning or other land use and development regulations like neighborhood preservation.
- To improve access to recreational water bodies for appropriate recreational uses. (Provide other mode of transportation, i.e. bus connections, bicycle facility options, sidewalks and trails to prime water front locations for the enjoyment of all Worcester residents).
- To continue to promote policies that encourage preservation of privately held farm/agricultural lands, forest, open space parcels and public education.
- To support tree reforestation initiatives (such as the City of Worcester Replanting and Worcester Tree Initiative a program of Tower Hill Botanic Garden) to restore the city tree cover from the Asian Long-horned Beetle infestation.
- To protect watershed from wildlife pollution (geese ducks etc.).
- To create policies which focus on the control or elimination of invasive aquatic, wetland and upland species and to enforce them (i.e. Install signage which requests operators to clean boat hulls when transferring between water bodies to prevent the spread of bacteria and invasive or non-native aquatic species).
- To identify locations where there is the greatest demand for community gardens and acquire or gain the rights to these parcels, or transform abandoned plots nearby.
- To continue mapping of natural resources on a Geographic Information System (GIS) (e.g. soils and development limitations, floodplains, wetlands).

B.2 MASSACHUSETTS STATEWIDE COMPREHENSIVE OUTDOOR RECREATION PLAN (SCORP) FINDINGS

It is noteworthy that Worcester's resource protection needs and demands align with many of those at the state level. For example, as noted in the SCORP Plan dated 2017, the Massachusetts Land Trust Coalition reported that the top four priorities of its member organizations (the Massachusetts Land Trust Coalition is a consortium of 130 local land trusts, watershed associations, open space committees and similar groups):

1. Biking Paths
2. Hiking / walking trails
3. Playgrounds
4. Outdoor public swimming pools

The most important land issues that the Land Trust is addressing include invasive species management, control of undergrowth and weeds, and providing parking to visitors to their properties. Some of the use issues impacting conservation areas across the state are illegal use of trails, littering and dumping, and conflicts between different types of users.

As a long term priority, the Land Trust would like to make their work relevant to a more diverse audience and strengthen the connections between conservation lands and surrounding neighborhoods, parks, schools, etc.

C. SUMMARY OF COMMUNITY'S NEEDS

C.1 REGIONAL CONTEXT

Actively promote the City as an area rich in historic resources of the 18th, 19th and 20th centuries through partnerships with groups such as Preservation Worcester, the Blackstone River Valley National Heritage Corridor Commission, Blackstone Gateway Park and the Worcester Historical Museum Commission.

- Promote the City's rich cultural and historic heritage to attract tourism and other viable economic development activities.
- Invest in streetscape improvements (to include sidewalks, bike lanes, amenities that support recreational opportunities along wider streets, green infrastructure, etc.).
- Support the management and maintenance of facilities that strengthen the City's position as the regional hub of Central Massachusetts and New England.
- Invest in park and open space improvements at sites that are located in Environmental Justice areas and where conditions warrant.
- Establish ways to connect the greatest assets of the park and open space system to regional and local tourism initiatives.
- Endorse stormwater treatment policies, Stormwater management, and Best Management Plan (BMPs) to reduce flooding, water pollution problems, and sewer system costs.

C.2 SCORP FINDINGS IN REGARD TO COMMUNITY NEEDS

The Massachusetts Statewide Comprehensive Outdoor Recreation Plan (SCORP), prepared by the Executive Office of Energy and Environmental Affairs has been reviewed in conjunction with the updating of the Worcester Open Space.

Some interesting SCORP findings in regard to community needs have been summarized below. (Source: Massachusetts Statewide Comprehensive Outdoor Recreation Plan 2017).

Results from a **SCORP Public Officials Survey** indicated the following:

- The most popular recreation resources for families are playgrounds and water facilities (beach, pond, pool etc.).
- For preschoolers; playgrounds and recreational water facilities.
- For children; playgrounds and athletic fields.
- For adolescents; athletic fields and skate parks.
- For adults; hiking/walking trails.
- For seniors; senior centers and hiking/walking trails.
- Public officials noted that public recreation facilities providing trail systems and multi-use fields will be a big priority over the next five year period and beyond. Other high ranking activities that will require physical resource investment are likely to include playgrounds, baseball fields, community gardens, picnic areas and fresh water swimming areas.

Results from a **SCORP Phone Survey** indicated the following:

- More than half of respondents mentioned walking, jogging or running as their top outdoor recreational activities.
- The second top outdoor recreational activities was hiking.
- This was followed by swimming in open waters (19%), road biking (18%), swimming pools (15%), gardening (12%), canoeing / kayaking (11%), field sports (10%).
- If the respondent was a youth, preferences included those referenced above but also team sports such as basketball, football, soccer and baseball were mentioned frequently.

From a state-wide perspective, a SCORP public survey showed that 35% of Massachusetts residents expect to increase their outdoor recreation activities over the next 5 years. From a local perspective, the SCORP highlighted what are likely to be the most popular facilities (1 being the most popular) over the next 5 years as follows:

1. Hiking Trails
2. Playgrounds
3. Paved, multi-use trails, such as rail trails
4. Outdoor swimming pools or spray parks
5. Off-leash dog parks

Youth (ages 12-18) are the group that has the least of their needs met. In order to increase their opportunity for meaningful activity, youth identify a number of priorities as follows:

1. Recreation close to their homes (60%)
2. More sports facilities
3. Age appropriately designed recreation areas
4. Beaches
5. Hiking Trails

Adults identified needs for outdoor recreation with physical fitness being a priority (running, walking or jogging), while youths often emphasized activities simply for fun and enjoyment.

Swimming, canoeing, kayaking and several winter sports are also ranked higher within youth populations.

Team sports are mentioned more often by residents that are younger, male and from urban areas with larger minority populations.

“For Our Common Good: Open Space and Outdoor Recreation in Massachusetts” (another statewide publication) identifies the following recreational needs deficiencies for Central Massachusetts:

- Water-based recreation activities (e.g. boating, fishing and swimming)
- Trail corridor programs
- Facility maintenance programs
- Preservation and conservation of water supply areas, and public-private partnerships for the provision of golf courses and tennis courts.



Beaver Brook Park

D. MANAGEMENT NEEDS AND POTENTIAL CHANGE OF USE

D.1 FACILITY MAINTENANCE

Since the 2013 Open Space Plan was published, the responsibilities of the Parks and Recreation Department has continued to grow while staffing has decreased. The City's Parks, Recreation and Cemetery Division, under the Department of Public Works and Parks continues to be responsible for operating the City's 160 acre cemetery - Hope Cemetery, all forestry operations, as well as maintaining the park support buildings and the Worcester Auditorium.

To overcome shortages, the City continues to rely on other groups that have stepped forward to fill maintenance gaps. Numerous sports organizations now maintain the fields which they use. Park Spirit, a private non-profit group, was created to solicit volunteers and funds to help maintain and improve the parks. The Friends of Hope Cemetery focus their fundraising and volunteer efforts on the maintenance and improvement of Hope Cemetery. In the end, the delivery of maintenance efforts is uneven and the lower profile, less formal and largely undeveloped natural resource areas tend to receive inconsistent treatments.

Even using creative partnering arrangements, the Department still finds itself far short of the staff needed to properly maintain the facilities under its jurisdiction. Therefore, during the busy growing season, active facilities are maintained for league uses but passive facilities are maintained only on an as needed basis. Furthermore, Conservation lands have no dedicated maintenance crews. Volunteers and the City's annual Earth Day clean-up, headed by the Regional Environmental Council (REC), are the only attention these facilities receive.

D.2 RECREATION PROGRAMS

The Recreation side of the Department of Public Works & Parks (Parks, Recreation and Cemetery Division) has seen a continual decline of funding. What used to be a full-time staff of four with a budget established in the City's annual budget planning process is now a staff of one with no program budget except for Aquatics. The Division now refers to itself as a "facilitator" of recreation and cultural activities for the City. The Division has one person to plan and implement a program but management on the Parks side of the Division continues to team-up with other organizations that can provide the financial and staffing resources needed to implement successful programs throughout the City, including tournaments, parks programs, concerts, other special events etc. An inventory of all recreational opportunities for all age groups was completed by the Parks, Recreation & Cemetery Division with the cooperation of MassHire.



Tournament at Rockwood Field

Basic recommendations to management needs include the following:

- Provide support staff for the Parks, Recreation and Cemetery Division.
- Develop more structured uses for neighborhood parks, especially teen programs.
- Utilize private and non-profit facilities for “after hours” recreation programs and activities.
- Pursue non-municipal funding sources to operate neighborhood-based recreational and cultural programs.
- Encourage inter-agency cooperation to stimulate program development, as seen with the recreational Worcester Program collaboration with the Department of Youth Opportunities.
- Encourage private investment in recreational areas and facilities.
- Ensure that the needs and recreational interests of residents of all social and age groups and abilities are considered to the fullest extent possible in developing recreational facility plans.
- Improve access to all types of recreation facilities.
- Improve and expand opportunities for staffed recreational swimming and beach usage by maintaining and upgrading existing facilities, by encouraging the protection of small lakes and ponds which have traditionally accommodated swimming, and developing opportunities where feasible and appropriate.
- Promote opportunities for bicycling as an alternative transportation mode and recreational activity throughout the City.



University Park

E. PRIORITY NEEDS SUMMARY

When taking into account information gathered from the 2017 Statewide Comprehensive Outdoor Recreation Plans (SCORPs), the publication of “For Our Common Good”, various publications from The Trust for Public Land, the Worcester Parks, Recreation and Open Space Public Survey, the site inventory process and from comments received at public meetings, we have compiled a list of the top five needs related to park and open space matters.

E.1 ENHANCEMENT OF NATURAL RESOURCES, with so much demand for escape from the rigors of urban life, there is a great need to provide improved access, improved facilities and resource enhancements of undeveloped and largely natural lands within the City’s open space network.

E.2 CONTINUED INVESTMENT IN ACTIVE RECREATION FACILITIES, while stakeholders representing this contingent were not as vocal, these facilities (as evidenced by heavy use) are critical to support active recreational pursuits of all of residents, and particularly younger, less affluent and underserved populations.

E.3 INCREASED MAINTENANCE, there is a tremendous need for a higher level of park and open space management and maintenance. While the City should be applauded for seeking creative approaches to maintaining higher visibility assets within the system, the delivery of maintenance service is uneven, especially at lower use, lower profile properties.

E.4 INTEGRATED PARK AND OPEN SPACE MANAGEMENT, there is a need to integrate new parks planning, programs and initiatives with other economic, infrastructure, health, environmental protection and transportation strategies.

E.5 GREATER OPEN SPACE SYSTEM CONNECTIVITY, there is a need to provide improved access overall, but also better connectivity between various open space resources in the City.

E.6 DESIGN OPEN SPACE IMPROVEMENTS TO MEET THE NEEDS OF A CHANGING POPULATION, the makeup of the citizenry in Worcester has changed. The population is older, and it is more diverse, and many families have members with a disability. There is a critical need to design park and open space improvements in a way that adequately serves these important constituent groups.



Elm Park



DCR-Lake Park



Cristoforo Colombo (East) Park

GOALS AND OBJECTIVES

A. COMMUNITY GOALS & OBJECTIVES PLANNING PROCESS

The City of Worcester has completed many goals and objectives identified in its Open Space and Recreation Plan over the past four decades. Action items continue to be carried forward, especially those established in 2013, as most remain relevant. However, in order to meet the needs of a more diverse population, several new goals and objectives have been identified in this 2020 edition of the Open Space and Recreation Plan. These new goals are a result of the public outreach process, and the City's own new initiatives and priorities.

The goals and objectives identified in this section of the Open Space and Recreation Plan correlate directly to the Priority Needs that are summarized at the end of Section 07 - Analysis of Needs. In a similar way, the goals and objectives, lead directly to the priorities identified in Section 09 - Action Plan.

SECTION 07
ANALYSIS OF
NEEDS



SECTION 08
GOALS AND
OBJECTIVES



SECTION 09
ACTION PLAN

Goals and objectives have been established through public outreach efforts and through interactions with a wide range of open space and recreation stakeholders. Goals identified in earlier plans have been reevaluated, confirmed, refined or removed if that goal has been accomplished.

New City priorities, initiatives, observations by the open space team members, and increasingly urgent factors associated with diversity, equality, inclusion, and climate change, have all helped to develop goals.

In essence, new goals, and objectives:

- Acknowledge the needs of increasingly diverse and underserved populations.
- Address threats or challenges to open space, and recreation assets posed by a changing climate.
- Include previously known goals that may not have been fully accomplished and continue to be relevant and important.

B. IDENTIFIED GOALS & OBJECTIVES

The goals identified below are a direct product of the public outreach process, which included face to face public engagement sessions, virtual meetings (after the COVID-19 pandemic struck), a well-publicized on-line user survey, and individual meetings with other key stakeholders in an effort to satisfy one over-arching goal (as defined in the Community Vision, Section 06) that can be articulated as follows:

“The City of Worcester seeks to provide a compelling open space and recreation system that is inclusive, and equitable, that provides all citizens of the community with relevant opportunities for use, enjoyment, and an opportunity to foster healthy lifestyles.”

The identified goals are listed in the table below.

Goal 1	Enhance Natural and Cultural Resources
Goal 2	Improve Water Quality and Public Access to Recreational Water Resources
Goal 3	Continue to Invest in Recreation Facilities
Goal 4	Upgrade Delivery of Parks and Open Space Maintenance Services
Goal 5	Integrate Parks and Open Space Planning
Goal 6	Promote Urban Landscape Improvements
Goal 7	Improve Open Space System Connectivity
Goal 8	Plan/Design Open Space Improvements to Meet Current and Future Needs
Goal 9	Expand Recreational Programming
Goal 10	Resiliency of Open Space
Goal 11	Establish Benchmarking Protocols for the Department Of Public Works & Parks
Goal 12	Funding for New Programs and Facilities that Promote Diversity, Equity and Inclusion (DEI)



Cascade Park



Salisbury Park

GOAL 1: ENHANCE NATURAL AND CULTURAL RESOURCES

There are important natural features and resources (woodlands, wetlands, streams, lakes, meadows, hillsides etc.), and important cultural resources (historical or archeological elements, venues for civic events etc.), that are woven throughout the Worcester Parks and Open Space system. It is these resources that help to form the City's identity and that provide natural venues for public use and enjoyment and environmental protection.

During meetings and through the user survey, it became clear that the majority of those participating in this planning process were keenly interested in the enhancement of the City's natural resources in a way that benefits the public and protects the environment. Other important, recent City initiatives, including Green Worcester, and the Worcester Cultural Plan, are aligned with the basic tenets of this goal.

Objective 1a | Protection of Unique and Sensitive Natural Resources

To promote unique and sensitive open space and natural resources by implementing protection strategies to effectively inventory, maintain, manage, and preserve these resources. Continue to include public led initiatives, support from private organizations, and the fostering of existing and new public/private partnerships.

Objective 1b | Invest in Restoring and Improving Natural Resource Properties

Invest in facilities that provide venues for passive recreational pursuits such as walking, hiking, jogging, fishing, wildlife viewing, canoeing, and kayaking.

Link other important public works projects with related resource enhancement efforts to maximize public benefit and investment. Continue to seek new partnerships and volunteer collaborations.

Objective 1c | Historic and Archeological Resource Protection

Identify and preserve Worcester's historic and archeological places, structures, and artifacts as representations of the City's cultural heritage; to support both on-going, and future efforts by public and private organizations in promoting Cultural Heritage.

Objective 1d | Acquisition of Key Parcels

Establish a matrix that chronicles the benefits of such an acquisition based on certain characteristics such as: proximity to other open space parcels in the interest of enhancing connectivity; size; community needs (population density, geographical gaps (especially in EJ areas), accommodating youth needs); natural needs (sensitive habitat, a species corridor); price, etc.

Acquisition of key properties may be through outright ownership or by less-than-fee means, such as conservation restrictions, scenic easements, and the purchase of development rights. Enlist the assistance of Federal and State open space agencies and local non-profit land stewards in an effort to acquire such parcels.

Objective 1e | Convert Tax Foreclosure Property

In lieu of allowing parcels on which no taxes are being paid to lay dormant for extended periods, transfer parcels of open space and conservation merit or that could be used for such purposes as community gardens, to the Conservation Commission or Department of Public Works & Parks.

Objective 1f | Potable Public Drinking Water Supply Protection

Protect sources of public drinking water, by means of utilizing development incentives, permit enforcement, innovative land use techniques, and implementation of a comprehensive wellhead protection program.

GOAL 2: IMPROVE WATER QUALITY AND PUBLIC ACCESS TO RECREATIONAL WATER RESOURCES

Establish and manage a City-wide network of publicly held water resources within the open space system that affords a higher level of public access while continuing to protect critical water resources and land/water interface zones where natural habitats and scenic vistas are important.

Objective 2a | Policies

Create and implement a property management plan to protect and improve water quality by reducing runoff and storm water issues, among others, and integrate recreational activities such as educational components.

Objective 2b | Improve Access to City's Waterfronts and Water Resources

Identify new and existing access points and links to water resources throughout the City making use of public lands and cooperative arrangements with willing private entities.

Objective 2c | Improve ADA Compliance at Recreational Water-based Facilities

Create new opportunities for both access and use of public facilities at water resources for the enjoyment of all users.

Objective 2d | Promote Water Quality Efforts

As capital projects are envisioned, identify stormwater management system design opportunities that are focused more on storing, recharging, and reducing loads directed to the utility infrastructure systems in areas surrounding park and open space properties.



Coes Pond Park



Blackstone Gateway Park



Holmes Field Park



Blithewood Park



Elm Park

GOAL 3: CONTINUE TO INVEST IN RECREATION FACILITIES

Enhance and expand the network of facilities at parks and playgrounds. Comply ADA requirements in conjunction with all Goals and Objectives.

Objective 3a | Evaluate and Repair Existing Playgrounds

Continue to evaluate and assess the condition of all existing playgrounds to accepted industry standards.

Objective 3b | Manage and Maintain Existing Playgrounds

Continue to develop and expand a maintenance program that keeps the playgrounds in proper use, good condition, and ADA compliant throughout the City.

Objective 3c | Planned Renovations to Existing Recreation Facilities

Continue to establish renovation strategies for existing recreation facilities in parks and playgrounds through feasibility studies and the master planning processes.

Objective 3d | Construct New Recreation Facilities and/or Convert Underused Facilities or Areas

To meet actual levels of demand and, to renovate existing facilities to achieve desired performance levels, construct new facilities and “re-purpose” underused facilities.

Objective 3e | Connect Recreation Assets to Cultural Life

Continue to support and grow the synergy between cultural events and the use of public spaces, in parks and street/sidewalk settings. For example, the Worcester Cultural Coalition has utilized the City’s open space assets for many popular events, such as ‘stART on the Street’, ‘Worcester Food Truck’, ‘Festival of Lights’, ‘Art in the Park’, ‘Summer Concert Series’ events, and more. Community outreach efforts can provide a basis of the type of programs/events that can occur in facilities, how to effectively market these programs or events, and how to get private sponsors involved.

Coordinate with relevant aspects of the City’s new Cultural Plan in association with enhancements to the park, recreation and open space system.

Objective 3f | Capture Undervalued Land for New Recreational Purpose

Explore downtown and other densely populated, underserved areas where open space is limited, explore opportunities to capture under-performing properties for establishing “pocket parks” to enhance neighborhoods and provide both urban recreation opportunities and green space.

GOAL 4: UPGRADE DELIVERY OF PARKS AND OPEN SPACE MAINTENANCE SERVICES

Develop a clear strategy to maintain all parks, playgrounds, athletic facilities and open space assets at an appropriate level that is suitable to ensure public use, enjoyment, and safety.

Objective 4a | Funding for Park and Recreation Property Maintenance

Establish stable funding to maintain built facilities within the City's parks and recreation system including fields, courts, playgrounds, common areas, circulation systems and all related infrastructure. The largest source of likely funding is in the form of City operational funds allocated during the annual budgeting process.

Objective 4b | Funding for Natural Resource Maintenance and Management

Establish stable funding to maintain and manage properties with important natural resources to better manage environmental ecosystems and to provide suitable means for public access, use and enjoyment. This includes primarily undeveloped Conservation Commission holdings as well as other lands of conservation interest that have shared rights of ownership and public usage.

Objective 4c | Maintenance Partnerships

Continue promoting and supporting innovative recreation resource management techniques through established and future partnerships to fill maintenance gaps. These partnerships can be employed to maintain active and passive recreational facilities, and both developed and undeveloped areas within the City's open space and recreation system.

GOAL 5: INTEGRATE PARKS AND OPEN SPACE PLANNING

Planning for parks and open space system improvements should be coordinated and integrated with other important and related City initiatives.

Objective 5a | Align Public Park and Open Space Initiatives with other City Initiatives

Coordinate and collaborate with other City departments and agencies in ways that are mutually beneficial. As public initiatives related to roadway, utility infrastructure, transportation, schools, housing, history, arts/culture, economic development, crime prevention, elder affairs, public health, and ADA compliance are contemplated, identify areas of common interest to maximize public investments and benefits.



City Hall Common



Field at Lake Park



Greenwood Park



Institute Park

Objective 5b | Evaluate Public Park and Open Space Venues to Support Other City Programs

Park properties may provide opportunities for healthy lifestyle and make them multi-generational in the form of walking paths, adult fitness, community gardens, and public plazas for gathering space.

Objectives 5c | Partnerships

Continue to establish and promote partnerships with private and non-profit entities for use and maintenance of outdoor recreation facilities particularly where programming demand exceeds supply.

GOAL 6: PROMOTE URBAN LANDSCAPE IMPROVEMENTS

Develop strategies, resources and objectives that promote a harmonious relationship between the existing built environment, and critical natural resources, both publicly and privately-held.

Objective 6a | Complete Streets Approach to Transportation Corridor Reconstruction

Explore City-wide opportunities for street tree planting, bicycle lane installations, roadway and sidewalk upgrades. A more comprehensive or "Complete Street" reconstruction approach should be considered along designated transportation corridors.

A Complete Streets approach recognizes the economic, social, transportation, accessibility, and open space and recreation values of an urban corridor through public infrastructure improvement and policy. Implementing complete streets improvements enhances the broader goals of diversity, equity and inclusion.

Objective 6b | Increase, Reuse and Redevelopment Efforts

Explore incentives to re-purpose underdeveloped sites, to provide a broad range of redevelopment incentives, including local regulatory incentives and federal/state redevelopment funding opportunities.

Objective 6c | Healthy, Local Food Initiatives

Explore open space resources in a way that helps to promote local growing initiatives, community garden establishment, farmers markets, and healthy eating habits.

Objective 6d | Parks and Open Space to support Public Health

Worcester's Division of Public Health, along with the CDC, encourages everyone to live a healthy lifestyle. Living a healthy lifestyle incorporates many different aspects, such as exercise, food safety and nutrition. Continue to seek ways to integrate and align park and open space policies and investments with highly relevant Worcester Department of Public Health tenets.

GOAL 7: IMPROVE OPEN SPACE SYSTEM CONNECTIVITY

There is a strong desire to achieve a higher level of connectivity between assets within the City's park and open space network in order to enhance public recreation opportunities and benefit. Residents have a vision of being able to traverse long distances through open space properties and along travel ways that have park-like characteristics.

Objective 7a | Public Street and Sidewalk Improvements

Consider upgrading streets and sidewalks in between properties encourages use by walkers, leads to positive public health and environmental benefits.

Continuous and connective sidewalks are threads that integrate the fabric of the City and promote community development and community building. In densely urbanized cities, they are often the only front yard a family may have, providing important open space amenities.

Objective 7b | Street Tree Planting Efforts

Continue street tree setback and park planting efforts City-wide. Trees play a major role in the beautification of the City to create a pedestrian friendly environment which could encourage walking, especially to park and open space properties. See related Goal 6.

Objective 7c | Bicycle Lanes / Other Amenities

Explore introduction of bicycle lanes and shared use accommodations as roadways are reconstructed. Seek to improve bicycle accommodations throughout the City and connections to key park and open space assets.

Objective 7d | Trail System Upgrades

Explore trails connectivity within and between open space assets.

Objective 7e | Land Purchases

Explore purchasing or acquiring the rights to lands with the express goal of improving and expanding connectivity between open space assets.

Work with the Greater Worcester Land Trust, as their representatives continue to have a keen sense for ways to expand the City's inventory of protected sites that provide environmental benefit and opportunities for connectivity (the linking of disparate park and open space properties).

Objective 7f | Encouragement of Private Neighborhood Preserves

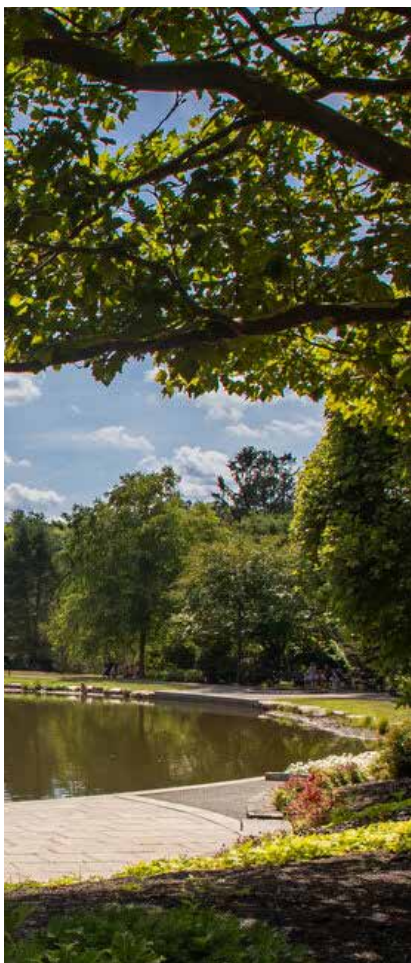
Connect the City's network of open space through the identification and protection of private neighborhood preserves - these being defined as contiguous privately held tracts of land, in aggregate, whose preservation as open space would benefit both their specific neighborhood and the general public. Work with private landowners, and other organizations to secure conservation restriction on such parcels.



University Park



Blackstone River Bikeway



Green Hill Park

Objective 7g | Public Transportation System Enhancements

Continue to explore with public transportation providers to improve connections to important park and open space assets throughout the City. Importantly, of the more than 1,000 respondents to the on-line survey, many residents noted that they rely on public transit to gain access to sites, at least some of the time.

GOAL 8: PLAN/DESIGN OPEN SPACE IMPROVEMENTS TO MEET CURRENT AND FUTURE NEEDS

Objective 8a | Evaluate Existing Open Space Opportunities

As the City continues to update inventories and assessments of its current open spaces and recreation facilities, these analytical tools (GIS, surveys, assessment reports, master plans, etc.) can be used to inform and guide residents and visitors of unknown, and under appreciated assets.

Objective 8b | Introduce New Recreation Facilities and Programs

Evaluate and prioritize recreational needs of residents that may not be satisfied by current open space and recreation facilities. Consider the large percentage of the population that is aging, people with disabilities, and many new-comers to this country who may recreate in ways that are different than prior generations.

There is also an ebb and flow to the popularity of various recreational pursuits with wide support expressed during the public outreach process for skate-parks, multi-use fields, community gardens, bicycle accommodations, passive outdoor recreation amenities, conservation, environmental education and stewardship.

Objective 8c | Evaluate New Open Space Opportunities

To meet the needs of a changing population, make use of the City's updated Geographic Information System (GIS) when seeking out opportunities for new recreational venues. Creatively plan and design new spaces to serve various purposes, such as urban pathways that can satisfy transportation, recreation and park connectivity needs.

Objective 8d | Explore Feasibility of Pilot or Innovative Use Programs

Innovative street programs have been developed and successfully tested in other higher density cities. An example of these type of community events are "Play Streets", "Park(ing) Day", where parking space becomes community hub for a day, and temporary installations like "Parklet Pilot Designs". The City could run a pilot program, evaluate results and make adjustments to the program as appropriate.

GOAL 9: EXPAND RECREATIONAL PROGRAMMING

Evaluate existing programs and explore ways to coordinate with other City departments and private partnerships to provide better formal recreation program offerings that can be coordinated with these entities.

Objective 9a | Comprehensive Recreation Program Inventory

Continue to develop, expand, manage and oversee recreation programming offerings that make appropriate use of parks and open space amenities and facilities that meets the needs of an increasingly diverse population. Establish more programming to target underserved populations, including youths, elders, people with disabilities, and populations living within environmental justice areas of the City.

Objective 9b | Increase Public Funding

Pursue additional City funding through the public budget process that allows the additional recreational programming, and hiring facility staff within the Department of Public Works & Parks.

Objective 9c | Increase Private Participation

Explore funding from private partners interested in sponsoring specific recreation programming opportunities. Coordinate where possible with other like-minded public and private groups and agencies that are already promoting public awareness of open space programs.

Objective 9d | Heighten Public Awareness

Explore programs and information sources (public workshops, information brochures, links on the City's web site, use of social electronic media) to heighten citizen awareness, and communication about the parks, recreation, open space system and the value of protecting that system and all related recreation programming.



Skate Court at Green Hill Park

GOAL 10: RESILIENCY OF OPEN SPACE

As a changing climate has significant implications related to the management and operation of park and open space systems, explore strategies for mitigating potential negative impacts of changing weather and associated events.

Objective 10a | Resiliency Policies

Explore mechanisms for applying guidance established by the Green Worcester Plan and the Municipal Vulnerability Preparedness Plan (MVP) to the park and open space realm.



Newton Hill at Elm Park



Elm Park

Objective 10b | Resiliency Funding

Explore funding through various state and federal funding sources that can be combined with traditional park and open space funding sources to help mitigate adverse impacts of climate change while improving park and open space facilities and offerings.

Objective 10c | Resilient Designs

The City (with funding from various sources) invests upwards of \$10M annually into the park and open space capital planning process. As improvements are designed and permitted, consider new means to make parks and open spaces more resilient and resistant to the damage, especially flooding, caused by larger and more frequent storm events.

Objective 10d | Resilient Park and Open Space Management Practices

Explore reducing the City's overall carbon footprint in relation to the maintenance and management of the parks and open space system. Explore strategies to improve lighting and electrical service requirements, maintenance of soft and hard surfaces, trash collection and building heating/cooling.

GOAL 11: ESTABLISH BENCHMARKING PROTOCOLS FOR THE DEPARTMENT OF PUBLIC WORKS & PARKS

Compare, plan, and implement adjustments to the parks, recreation, and open space system to better align with relevant national standards, including those established by the National Recreation and Parks Association (NRPA), a long-established authority. Where appropriate, leverage information to secure support for positive change.

Objective 11a | Benchmarking the Worcester Parks, Recreation and Open Space System

Establish a matrix of existing park and open space assets, contained within the 61 properties managed by the Department of Public Works & Parks and benchmark this against NRPA data and information that is available from other peer communities including those located throughout New England and the Northeast US.

GOAL 12: FUNDING FOR NEW PROGRAMS AND FACILITIES THAT PROMOTES DIVERSITY, EQUITY AND INCLUSION (DEI)

On all matters related to the City's park and open space system, strive to achieve diversity, equity, and inclusion so that all residents enjoy benefits that are fair and equally accessible. Stay in alignment with national, state, and local priorities as it relates to DEI.

Objective 12a | Work to create an open space system that is reflective of the diversity of the Worcester community and that is inclusive, accessible and equitable.

Align hiring and advancement of staff with overall City Goals as established by the Executive Office of Diversity and Inclusion. Having a workforce that is reflective of the greater City population will help to increase support for Department initiatives. Continue the very successful Park Stewards program which hires youth between the ages of 16-21 on a seasonal basis.

As new park and open space master plans are undertaken, specifically target outreach to those members of our community who have traditionally not participated. This will help to ensure fair investments that support populations that may have been underserved and it will also foster the growth of a new and wider generation of park stakeholders and stewards.



Cristoforo Colombo (East) Park



Hadwen Park



Cristoforo Colombo (East) Park



WWI Memorial Grove at Green Hill Park

SEVEN-YEAR ACTION PLAN

This Action Plan is based on the goals and objectives identified in the preceding section of the report. At a glance the number of action items that have been articulated might seem daunting, but in review of prior Action Plans it is useful to note that the City has been successful in achieving many (but not all) of previously stated action items. We suspect that the current Action Plan will yield similar results in that much, but not all, of the goals stipulated below will be achieved. In this way it is recognized that no plan is perfect and that all plans must be somewhat flexible.

Even within a seven-year timeframe, much can change, and priorities might shift for various reasons. Since the publishing of the last Open Space and Recreation Plan, a generally strong economy has provided opportunity for the accomplishment of action items and yet progress has more recently been tempered by the repercussions of a worldwide pandemic and the need for heightened attention to environmental justice, equity, diversity, and inclusion. Since we live in a dynamic world, the Action Plan must then be flexible, and the City must be prepared to shift attention and resources in ways that might not be expected.

In total, the goals, objectives, and action items have been carefully vetted and assembled and they seem right. The progression of implementation also seems right, yet the City must be quick to adjust if needs and priorities shift. A great example- prior to the 2013 OSRP Plan, the Asian Long-horned Beetle infestation caused the sudden shifting of park, open space, and recreation resources to meet and manage this unprecedented challenge. And the City is still addressing the impacts of this infestation.

Other types of occurrences that might require us to be fleet of foot in adjusting the order of action item implementation might include:

- Unexpected damage to a property requiring immediate reinvestment and reconstruction.
- The sudden availability of a key parcel of land with park, open space, or recreation potential.
- The opportunity to upgrade an open space asset by leveraging funds from a large and possibly connected private development.
- In response to a major donation, that is earmarked for a special park, open space and recreation purpose.
- Opportunity to upgrade an existing open space asset in cooperation with another development project.

As the 2020 OSRP Update is rolled out and begins to be implemented, it is recommended that the City develop a consistent method for tracking progress. This might be accomplished through the establishment of a formal or informal committee. The Committee might include representatives from the Worcester Department of Public Works and Parks, other municipal departments or boards and commissions, and representatives from the Worcester Greater Land Trust, Mass Audubon or other similar stakeholder groups that possesses interest in the management and advancement of a first-rate park system.

As this Action Plan is launched, there is cause for new optimism as the overall appreciation for open space and recreation needs seems heightened with a general understanding that the management and maintenance of a first rate system can provide compelling benefits to a community and to a region in regard to building community spirit, enhancing economic development, providing meaningful outlets for citizens to be active and to maintain healthy lifestyles and for benefiting the environment.



Green Hill Park

Goals & Objectives	Actions	Priority	Responsibility	Funding Source	Percent Complete
Goal 1: Enhance Natural and Cultural Resources					
Objective 1a Protection of Unique and Sensitive Natural Resources	1. Allocate annual operational and capital funds to the Conservation Commission for management of properties in their custody. • Add line item to EOED Annual budget for maintenance. • Consider feasibility of maintenance consolidation to one Department.	Ongoing	Planning and Conservation	City, Volunteers	
	2. Add compliance inspector position to the DPRS to improve capacity to monitor construction projects for erosion control and stormwater management compliance during construction.	Ongoing	Planning and Conservation	City, Volunteers	
	3. Allocate money to improve maintenance and evaluation of resource restoration and replication.	Ongoing	DPW & P, Planning and Conservation	City	
	4. Research acquisition history and deeds for all municipal conservation and parklands and identify those parcels that have stipulated uses as parks, conservation, conservation restrictions, etc. • Add additional attributes to existing open-space data to include all clearly prohibited uses (Dogs, etc.) and amenities (e.g., trails, parking, restrooms, accessible routes, etc.). • Make revised data available in a publicly accessible format. • Clarify Article 97 protections of all properties.	Ongoing	DPW & P, Planning, GWLT, Technology Services and GIS	City	
	5. Correct the custody information (Assessors' records) or reclassify ownership of properties to the correct department for holding with new Council Transfer Order.	Ongoing	DPW & P, Planning and GWLT and University project	City	
Objective 1b Invest in Restoring and Improving Natural Resource Properties	1. Allocate additional capital funds specifically targeted for improvements to natural resource areas.	Ongoing	DPW & P, Planning and Conservation	City, Grants, Partnerships, Volunteers	
	2. Identify criteria for allocation of funds to priority natural resource properties.	Ongoing	DPW & P, Planning and Conservation	City, Grants, Partnerships, Volunteers	
	3. Identify funding needed on an annual basis to complete improvements on various capital projects.	Ongoing	DPW & P, Planning and Conservation	City, Grants, Partnerships, Volunteers	
	4. Consider allocation of funds to support trail development, signage, maintenance, and operations.	Ongoing	DPW & P, Planning and Conservation	City, Grants, Partnerships, Volunteers	

Goals & Objectives	Actions	Priority	Responsibility	Funding Source	Percent Complete
	5. Consider dedicating all or a portion of Conservation Commission filing funds to preserve open space or manage existing open spaces.	Ongoing	DPW & P, Planning and Conservation	City, Grants, Partnerships, Volunteers	
	6. Earmark funds from current utility, private development, infrastructure, transportation capital projects to improve environmental resources at open space properties where work is integral or connected.	Ongoing	DPW & P and Planning	City, Grants	
	7. Collaborate with all agencies to obtain additional resources to support improvements. (Schools, DPW, EOED).	Ongoing	City	City, Grants	
	8. Encourage all new infrastructure projects to incorporate LID and BMP for stormwater management to improve water quality and improve resiliency.	Ongoing	City	City, Grants	
	9. Consider protocols and strategies for restoring inherent natural resource qualities at damaged properties (Invasive species, impacted woodlands, stormwater management, invasive vegetation controls, erosion controls). <ul style="list-style-type: none"> Add exception provisions into the Wetlands Protection Regulations to allow restoration projects involving native species with ease. Consider prioritizing projects with a multitude of benefits (flooding, nuisance vegetation, recreation, etc.) 	Ongoing	DPW & P, in collaboration with ConCom and Planning	City, Partnerships	
	10. Continue to partner with other land stewards, corporations, higher education institutions, and other civic partners to restore, clean, manage, help monitor water quality, and improve conservation lands.	Ongoing	DPW & P and Conservation	Partnerships, Volunteers	
	11. Formalize data sharing with partner groups on shared responsibilities, such as trail maintenance/new trail mapping. Share updates with public in a formal way.	Ongoing	DPW & P, ConCom, Tech Services, GWLT and Park Spirit	City, Grants, Partnerships	
	12. Improve physical assets within conservation lands including trail heads, pocket parking, bicycle racks, trails, piers, docks, decks, interpretive signage, and ADA compatibility.	2021 Onward	DPW & P, Conservation, GWLT, Mass HUD and Park Spirit	City, Grants, Partnerships	
	13. In conjunction with partners create inventories and masterplans for passive open space facilities. Prioritize those properties that provide maximum co-benefit, including EJ populations, climate	Ongoing	DPW & P and ConCom	City, Grants, Partnerships	

Goals & Objectives	Actions	Priority	Responsibility	Funding Source	Percent Complete
	resiliency and sensitive habitat management areas.				
Objective 1c Historic and Archeological Resource Protection	1. Complete an inventory of historic assets within parks and open space properties and make available via the City's web site.	Ongoing	DPW & P, Historical Commission, Worcester Historical Museum and PW	Grants, Partnerships	
	2. Continue awareness by implementing signage for improvements and add historic attributes to the open space GIS system.	Ongoing	DPW & P and Tech Services	City, Grants	
	3. Identify and track sources of funding for historical and archeological resource protection.	Ongoing	Planning and Historical Commission	City, Grants	
	4. Explore ways to collaborate with other organizations to transform former industrial sites into innovative mixed-use developments with historical and open space components.	Ongoing	Planning and Worcester Redevelopment Authority	City, Grants	
	5. Consider zoning regulations to require provision of open and/or recreational space for all new residential uses.	2022 Onward	Planning	City, and Private	
	6. Confirm protection of the last granite quarry in Green Hill Park.	Ongoing	DPW & P	City, Grants	
	7. Update "The Artwork in Our Parks Bookplate 1989".	2025 Onward	DPW & P	City, Grants	
Objective 1d Acquisition of Key Parcels	1. Develop priority acquisition criteria to establish and maintain a list of areas of conservation and recreation interest. Emphasis on providing connectivity, meeting needs of underserved populations and addressing resiliency issues.	Ongoing	DPW & P, Planning, Conservation and GWLT	City, Grants, Partnerships	
	2. Develop management plans to maintain important protected habitats, etc. as part of funding prioritization.	2024	DPW & P, Co Com GWLT and Mass HUD	City, Grants and Partnerships	
	3. Continue to submit applications for land acquisitions to state LAND program annually. Prioritize staffing to allow for grant writing and management/acquisition of properties.	Ongoing	DPW & P, Planning, Conservation and GWLT	City, Grants, Partnerships	

Goals & Objectives	Actions	Priority	Responsibility	Funding Source	Percent Complete
	4. Continue to acquire properties of open space interest through outright purchase by the City, cooperative purchase, use of conservation restrictions or other forms of easements or rights of usage.	Onward	DPW & P, Planning, Conservation, GWLT and Mass HUD	City, Grants, Partnerships	
	5. New acquisitions should be paired with resources to maintain them.	2020	City and Private	City, Grants, Partnerships	
Objective 1e Convert Tax Foreclosure Property	1. Establish consistent policy that allows the Parks & Recreation Commission and Conservation Commission to review merits of properties which fall into a non-payment of taxes status and to participate on decisions regarding the disposition of such properties. Criteria for selection of properties should emphasize providing connectivity, underserved populations and addressing resiliency issues.	Ongoing	DPW & P, Planning, Assessors and ConCom	N/A	
	2. Identify Open Space vs. Economic Development benefits to facilitate transfer of property to alternate custodian were deemed appropriate. Work with partners to assure consistency in process to avoid loss of priority land.	Ongoing	DPW & P, Planning, ConCom and Economic Development		
	3. Explore the use of tax title properties for community gardens. Encourage pilot program between community gardens and neighborhood groups to target parcel acquisition for use in urban agriculture.	2020 Onward	DPW & P, Planning, ConCom and Neighborhood Groups	City, Private	
Objective 1f Potable Public Drinking Water Supply Protection	1. Continue to utilize permits and other incentives to protect public drinking water supplies.	Ongoing	DPW & P, Planning and Conservation	N/A	
	2. Continue to protect reservoirs for drinking water outside of city.	Ongoing	DPW & P	City	

Goal 2: Improve Water Quality and Public Access to Recreational Water Resources

Object 2a Policies	1. Consider a full IPM plan to manage fertilizers and pesticides, especially in parks that are adjacent to waterways.	2025 Onward	DPW & P	City	
	2. Explore clear pathways for land-management decisions for properties involving open water where residents may wish to permit docks.	2023 Onward	City	City, Private	
	3. Create a list of high priority parks that contribute to water quality of Worcester waterways. Targeting parks with issues first, implement LID and BMP to	2023 Onward	DPW & P and ConCom	City, Grants, Partnerships	

Goals & Objectives	Actions	Priority	Responsibility	Funding Source	Percent Complete
	reduce runoff and stormwater issues that contribute to improve water quality.				
	4. Explore a streamline process for Boy Scout wetlands permitting for trail improvements on City owned land.	2021 Onward	ConCom	NA	
	5. Identify a policy for property management to support facilities that have an educational component or water body access.	2021 Onward	ConCom	City, Grants, Partnerships	
Objective 2b Improve Access to City's Waterfronts and Water Resources	1. Continue to identify potential physical improvements to the public access of the City's recreational water bodies. Prioritize those that provide access to water-based recreation.	Ongoing	DPW & P, Planning and ConCom	City, Grants, Partnerships	
	2. Prioritize funds to projects that address barriers to recreational water bodies.	Ongoing	DPW & P, Planning and Con Com	City, Grants, Partnerships	
	3. Improve access to cooling by tree planting that provide shade.	Ongoing	DPW & P, Planning and ConCom	City, Grants, Partnerships	
	4. Continue the installation of rain garden water-quality improvements (BMP), and flooding reduction measures.	Ongoing	DPW & P, Planning and ConCom	City, Grants, Partnerships	
	5. Continue to improve universal access to water resources by upgrading nearby city sidewalk networks, installing new trails and paths with ADA compliant elements.	Ongoing	DPW & P, Planning and Conservation	City, Grants, Partnerships, Volunteers	
	6. Update signage at water properties and trails leading to water access. Map access points and trails leading to water access in the GIS systems.	2024 Onward	DPW & P, Planning, ConCom, Technology Services, GWLT and Mass HUD	City, Grants, Partnerships	
	7. Continue to obtain easements and or rights-of-passage that connect to water. Prioritize properties that decrease heat island effects on potential users.	Ongoing	DPW & P, Planning, ConCom, Mass HUD and GWLT	City, Grants, Private,	
	8. Continue to establish transportation options connecting to water resources. <ul style="list-style-type: none"> • Maintain or prioritize route options that create access (even if seasonal). • Prioritize transportation improvement funds/projects to areas linking to open space. 	Ongoing	WRTA and Planning	Federal, State, City, Private	

Goals & Objectives	Actions	Priority	Responsibility	Funding Source	Percent Complete
	9. Establish recreation programs and environmental education programs that make use recreational water bodies. Create a multi-modal pathway along Mill Street, Lake Avenue and/or the shore of Lake Quinsigamond.	2025 Onward	DPW & P, Planning and Youth Opportunities	City, Grants, Partnerships	
	10. Acknowledge Mayor's focus on the Blue Spaces Program, and related regional efforts.	Ongoing	City and Partnerships	City, Grants, Partnerships	
	11. Continue to develop strategies (see related actions under Objective 1b) to construct support facilities (fishing piers, wildlife observation docks, interpretive and information signage, trail systems etc.) at recreational water based open space properties.	Ongoing	DPW & P and GWLT	City, Grants, Partnerships	
	12. Identify water access points in Green Hill Park, Parcel 149, Curtis Pond, and other public facilities.	Ongoing	DPW & P and GWLT	City, Grants, Partnerships	
Objective 2c Improve ADA Compliance at Water-based Facilities	1. Continue to improve universal access at water-based recreation areas and publish (via the City web site) a list of ADA compliant properties and amenities. Add ADA attributes to website, trails, and property data in GIS for public use/consumption.	Ongoing	DPW & P, Planning and Conservation	City, Grants, Partnerships	
Object 2d Promote Water Quality Efforts	1. Add signage to properties to promote healthy, clean waterways and aquatic life.	Ongoing	DPW & P and ConCom	City, Grants, Partnerships	
	2. Consider working with partner groups to study on site and upstream impacts to the water bodies adjacent to park and open space assets.	Ongoing	DPW & P, GWLT, GHPC and ConCom	City, Grants, Partnerships	

Goal 3: Continue to Invest in Recreation Facilities

Objective 3a Evaluate and Repair Existing Playgrounds	1. Continue to assess the condition of all existing park and playgrounds.	Ongoing	DPW & P	City	
	2. Continue to remove from use or repair playground equipment that is found to be unsafe or damaged based on ASTM and CPSC.	Ongoing	DPW & P	City	
	3. Prioritize additional resources to meet playground industry maintenance guidelines.	Ongoing	DPW & P	City	
Objective 3b Manage and Maintain Existing Playgrounds	1. Continue to develop and implement a program to regularly inventory and inspect (by a CPSI staff member) all playgrounds.	Ongoing	DPW & P	City	
	2. Continue to maintain and operate all existing playgrounds in a condition that is safe and code compliant.	Ongoing	DPW & P	City	

Goals & Objectives	Actions	Priority	Responsibility	Funding Source	Percent Complete
	3. Continue to allocate additional funds in the City's annual operational budget for routine playground maintenance and repairs.	Ongoing	DPW & P	City	
	4. Continue to include a line item in the City's annual capital plan that earmarks funds specifically for playground replacements.	Ongoing	DPW & P	City	
Objective 3c Planned Renovations to Existing Recreation Facilities	1. Continue to update a maintenance list prioritizing the most actively used recreational facilities and re-evaluate frequently.	Ongoing	DPW & P	City	
	2. Continue to complete remaining park Master Plans as part of an effort to fulfill the recreational needs of residents and to maximize use and amenities.	Ongoing	DPW & P	City and Partnerships	
	3. Continue coordination efforts with the City's Accessibility Advisory Commission to make new facilities inclusive and ADA compliant.	Ongoing	DPW & P	City	
	4. Continue community outreach efforts to address recreational needs particularly in EJ neighborhoods.	Ongoing	DPW & P	N/A	
	5. Establish funding streams for implementing previously completed and new park property master plans.	Ongoing	DPW & P	City, Grants, Partnerships	
	6. Continue to target capital improvement programs that renovate like facilities at multiple sites (where possible) to provide cost reductions through economies of scale.	Ongoing	DPW & P	City	
	7. Continue to develop an asset management system to better track, general maintenance, repairs, and improvements throughout the park system.	Ongoing	DPW & P	City	
Objective 3d Construct New Recreation Facilities and/or Convert Underused Facilities or Areas	1. Continue to look for new locations to site needed recreation facilities. Consider additional avenues to allow urban farming and community gardening to occur (e.g., urban orchards, etc.)	Ongoing	DPW & P	City, Grants, Partnerships	
	2. Continue implementing the "Rectangular Field Master Plan". Look for new locations for additional multi-purpose rectangular fields and consider converting existing fields to new, synthetic turf systems where natural turf is not sustainable due to heavy use.	Ongoing	DPW & P	City, Grants	

Goals & Objectives	Actions	Priority	Responsibility	Funding Source	Percent Complete
	3. Construct new facilities for activities that are underserved and/or emerging (handball, pickleball, cricket, rugby, netball, biking, field hockey, lacrosse, and skateboarding).	Ongoing	DPW & P	City, Grants	
	4. Establish “play groves” or natural play areas as an alternative to traditional play equipment systems that encourage children to explore their natural world more fully.	Ongoing	DPW & P and Planning	City, Grants	
	5. Continue to implement the City’s pool and splash pad initiative.	Ongoing	DPW & P	City	
	6. Continue to expand appropriate locations for dog parks in the City in accordance with the previously complete and master plan. Consider water quality and habitat in site selection.	Ongoing	DPW & P and GWLT	City, Grants, Partnerships	
	7. BATHROOMS - Investigate how other cities have managed the issues of access to bathrooms in parks. Where possible open bathrooms to accommodate specific groups or special events.	2022 Onward	DPW & P	City	
	8. Continue to install sports and pedestrian lighting in all renovation projects.	Ongoing	DPW & P	City, Grants, Partnerships	
	9. Continue to install security camera infrastructure in all capital project improvements.	Ongoing	DPW & P	City, Grants, Partnerships	
Objective 3e Connect Recreation Assets to Cultural Life	1. Continue to support special community events and programs related to arts and culture through the design of multi-functional public parks and open space features and facilities.	Ongoing	DPW & P, Cultural Development Office	Grants and Partnerships	
	2. Continue to support cultural plan strategies, public art incorporated, and cultural events.	Ongoing	DPW & P, Cultural Development Office	Grants and Partnerships	
	3. Develop a maintenance and management plan for all artwork installation in parks along right of ways. Plan must include ownership, funding, and responsibility of installations.	Ongoing	DPW & P, Purchasing, and Cultural	City, Grants, Partnerships	
	4. Develop policies and protocols on the “Installation of Art Works” in parks that meet common warranty and city purchasing requirements.	Ongoing	DPW & P, Purchasing, and Cultural	City, Grants, Partnerships	
	5. Continue to identify and explore opportunities for capital projects to include public art or other activating elements.	Ongoing	PDW & P	City, Grants, Partnerships	


Goals & Objectives	Actions	Priority	Responsibility	Funding Source	Percent Complete
	6. Continue to make parks inclusive and welcoming to E.J. neighborhoods. Understand what are the barriers that prevent use for certain populations. Target those neighborhoods to expand access.	Ongoing	DPW & P, Planning and Cultural	City, Grants, Partnerships	
Objective 3f Capture Undervalued Land for New Recreational Purpose	1. Identify and consider underperforming properties to create pocket parks in densely urbanized areas.	Ongoing	DPW & P, Planning and ConCom	City, Grants	
	2. Prioritize to help create cooling, decrease heat islands, provide opportunities for food growth, or manage stormwater in flood-prone areas.	Ongoing	DPW & P, Planning and Con Com	City, Grants, Partnerships	
	3. Continue to explore opportunities for converting brownfields and other distressed properties to park or open space use and construct new facilities on those properties to meet recreational demands.	Ongoing	DPW & P, Planning and Economic Development	City, Grants	

Goal 4: Upgrade Delivery of Parks and Open Space Maintenance Services					
Objective 4a Funding for Park and Recreation Property Maintenance	1. Explore and benchmark other communities' financial models on maintenance of parks.	Ongoing	DPW & P		
	2. Seek ways to restore operational funds for park maintenance, staff positions lost during previous economic downturns, support new areas of responsibility, and purchases to make maintenance operations more efficient.	Ongoing	DPW & P	City	
	3. Consider maintenance contracts and land maintenance into one operational department for all open space to increase efficiency and effectiveness.	2020 Ongoing	DPW & P	City	
	4. Provide additional staff and training specific to green infrastructure.	Ongoing	DPW & P	City	
	5. Identify funds for recreational waterbody maintenance.	Ongoing	DPW & P, GWLT, Mass HUD and ConCom	City	
Objective 4b Funding for Natural Resource Maintenance & Management	1. Identify operational needs (staff, materials, equipment) to better maintain natural areas within public parks and open space properties.	2022 Onward	DPW & P, GWLT and Mass HUD	City	
	2. Consider identifying park and open space properties with special habitat maintenance needs, ID strategies to conduct management and identify funding to address.	2023 Onward	DPW & P and ConCom	City	

Goals & Objectives	Actions	Priority	Responsibility	Funding Source	Percent Complete
	3. Find ways to secure reliable public/private funding sources to reach a more sustainable state within the City's richly diverse woodlands, wetlands, and related conservation areas. (Particularly in areas now stressed by invasive species infestations and storm damage.	2017 onward	DPW & P and ConCom	City, Grants, Partnership, Volunteers	
Objective 4c Maintenance Partnerships	1. Continue to enter partnerships that helps to address maintenance and management challenges at park and open space properties.	Ongoing	DPW & P, ConCom and GWLT	Partnership, Volunteers	
	2. Continue regular Earth-day cleanups	Ongoing	City	Partnership, Volunteers	
	3. Develop a consistent policy regarding water usage at the city's community gardens.	2022 Onward	DPW & P and REC	City, Partnership, Volunteers	
	4. Continue to enter creative partnerships to supplement City efforts. Establish a model for successful partnerships. Shore Park, Park Stewards, Youth Summer work-acknowledge, and expand upon successes.	Ongoing	DPW & P and ConCom	Partnership, Volunteers	

Goal 5: Integrate Parks and Open Space Planning

Objective 5a Align Public Park and Open Space Initiatives with other City Initiatives	1. Continue to coordinate with REC regarding community gardens.	Ongoing	DPW & P and Planning	N/A	
	2. Continue to schedule regular meetings with other City departments and agencies (Planning, Health, Elder Affairs, Accessibility Advisory Commission, Schools, and Youth opportunities, etc.) to find common interests and maximize public investment and benefits.	Ongoing	DPW & P and Planning	N/A	
	3. Continue to schedule meetings with other City departments and agencies, key constituents, neighborhoods and volunteer groups during planning processes.	Ongoing	City	N/A	
	4. Seek funding partnerships with other City departments and agencies to implement improvements that are mutually beneficial (include Schools, Elder Affairs, Office of Disability and Youth Services etc.).	Ongoing	City	City, Partnerships	
	5. Assist in getting Conservation Commission to become more planning related and less regulatory.	2022 Onward	ConCom	City	
Objective 5b Evaluate Public Park and Open	1. Continue to facilitate use of park and open space facilities for events or programs offered through other City departments and agencies including	Ongoing	City	Partnership, Volunteers	



Goals & Objectives	Actions	Priority	Responsibility	Funding Source	Percent Complete
Space Venues to Support Other City Programs	Public Health, Division of Elder affairs, Office on Disabilities, Worcester Cultural Coalition, Worcester Arts Council, Climate Resiliency and Green Worcester entities.				
Objective 5c Partnerships	1. Continue to establish and promote partnerships with private or non-profit entities (private schools and higher education institutions for instance) for use of outdoor recreation facilities particularly where programming demand exceeds supply. Including use of outdoor space for food-production.	Ongoing	City and non-profit partnerships	N/A	

Goal 6: Promote Urban Landscape Improvements					
Objective 6a Complete Streets Approach to Transportation Corridor Reconstruction	1. Establish protocols and policies for using complete streets approach to transportation corridor reconstruction efforts, where possible.	Ongoing	DPW & P and Planning	City, Grants	
	2. Consider new regulations and zoning requirements to adjust street standards requiring bike lanes/parking (as appropriate), pedestrian amenities, sidewalks, robust street tree planting and LID stormwater treatment.	Ongoing	DPW & P and Planning	City, Grants	
	3. Inventory bike lane street markings to identify better linkages and target improvements.	Ongoing	DPW & P and Planning	City, Grants	
	4. Prioritize complete street developments that connect to larger public transit linkages and to open space assets.	Ongoing	DPW & P and Planning	City, Grants	
	5. Research opportunities for state and/or federal funding for this type of integrated planning and design initiatives. Apply for Mass DOT Complete Streets Tier 3 (construction) funding.	Ongoing	DPW & P and Planning	City, Grants	
Objective 6b Increase, Reuse and Redevelopment Efforts	1. Consider local regulatory incentives and identify federal/state redevelopment sources of funding to minimize disturbance of remaining open areas in the City by redeveloping underperforming properties first.	Ongoing	DPW & P, Planning and GWLT	N/A	
	2. Explore open space requirements to reduce clearing of existing native vegetation. Consider reevaluating tree replacement code of undeveloped properties, to provide robust replanting requirements.	2023 Onward	DPW & P and Planning	City, Grants	
	3. Expand Chapter 61 effort to support urban areas. This tax reduction is for private lands that serve public benefit. Currently most acreage is too small to qualify.	2024 Onward	DPW & P, Planning and GWLT	City, Grants	

Goals & Objectives	Actions	Priority	Responsibility	Funding Source	Percent Complete
Objective 6c Healthy, Local Food Initiatives	1. Define steps to apply open space resources and programs to help promote community garden establishment for improve and dietary options.	Ongoing	DPW & P, REC Health Department and Schools	Grants, Partnership, Volunteers	
	2. Create user-guide to permitting for urban gardening.	2023 Onward	DPW & P, REC, Schools, and Health & Inspection Services	Grants, Partnership, Volunteers	
	3. Support development of urban agriculture and community gardening. Acquisition, permitting, expanding urban orchards. Support farmer's markets in parks, partnerships, summer school lunch distribution.	2020 Onward	DPW & P, REC, Schools, and Health & Inspection Services	Grants, Partnership, Volunteers	
Objective 6d Parks and Open Space to support Public Health	1. Continue progress toward the goal that all residents live within a 10-minute walk to a high-quality park, to ensure equitably distribution throughout the city.	2020 Onward	DPW & P	City, Grants, Partnership	
	2. Evaluate 10-minute walk mapping in consideration of topography and physical barriers.	2024 Onward	DPW & P	City, Grants, Partnership	
	3. Seek funding to study issues of public bathrooms and portable toilets.	2024 Onward	DPW & P	City, Grants, Partnership	

Goal 7: Improve Open Space System Connectivity

Objective 7a Public Street and Sidewalk Improvements	1. Evaluate and prioritize sidewalk improvements by analyzing their current functionality, safety and connectivity between residential, commercial areas, public transit, and open space assets.	Ongoing	DPW & P, Planning and Accessibility Advisory Commission	City, Partnerships	
	2. Undertake a comprehensive, city-wide walkability assessment that recognizes city sidewalks as extensions of the City's open space system. Prioritize improvements to sidewalks to open space in poor condition.	Ongoing	DPW & P and Planning	City, Partnerships	
Objective 7b Street Tree Planting Efforts	1. Complete the Urban Forest Master Plan/Canopy Coverage mapping to assist in prioritization of street tree planting projects.	2021 Onward	DPW & P	City, Grants	
	2. Establish effective planting protocols to improve viability of street tree planting initiatives.	2021 Onward	DPW & P	City, Grants	
	3. Develop a system to manage trees as assets and track planting activity and mortality of trees.	2021 Onward	DPW & P	City, Grants	



Goals & Objectives	Actions	Priority	Responsibility	Funding Source	Percent Complete
	Determine main causes for mortality and implement solutions to decrease mortality rates.				
	4. Engage partnerships with private property owners to participate in the care of street tree plantings (use the City's private property tree adoption program).	Ongoing	DPW & P	City, Grants	
	5. Work with arborist to develop a species/planting list considering canopy needs and future resiliency of species to climate change and pests (EAB, ALB, etc.) for use in development projects (City and private) and incorporate into relevant regulations/policies.	2021 Onward	DPW & P	City, Grants	
	6. Continue tree planting initiatives as the City recovers from current and future infestations.	Ongoing	DPW & P	City, Grants	
	7. Coordinate trees replantation if DPW resurfacing causes removal based on right "right tree/right place". No net loss DBH program.	2021 Onward	DPW & P	City, Grants	
Objective 7c Bicycle Lanes/ Other Amenities	1. Coordinate with road reconstruction projects, planning projects and other initiatives where potential links to parks and open space are readily available.	Ongoing	DPW & P and Planning	City, Grants, Partnership, Volunteers	
	2. Consider bicycle and wider pedestrian amenities; focus on completion of a designated bike lanes. Build off the Mass DOT state bicycle plan and utilize the Mass Trails program, where applicable.	Ongoing	DPW & P and Planning	City, Grants, Partnership, Volunteers	
	3. Consider a comprehensive, city-wide bicycle facility planning effort to identify opportunities for stand-alone and integrated bicycle facility improvements.	2024 Onward	DPW & P and Planning	City, Grants	
	4. Complete Tier 2 MASS DOT Complete Streets Prioritization Plan.	2025 Onward	DPW & P and Planning	City, Grants	
	5. Consider bike amenities into all on streets, parks, open space, trail heads and into all municipal garages.	Ongoing	DPW & P, Planning and ConCom	City, Grants, Partnership	
	6. Consider requirements for bike amenities as part of private side developments through zoning and/or other regulations.	Ongoing	Planning and ConCom	City, Grants, Partnership	
	7. Coordinate with bicycle advocacy groups (Walk/Bike Worcester and others) to maintain an on-line information source for bicycle facilities located within the City.	2024 Onward	DPW & P and Planning	City, Grants	

Goals & Objectives	Actions	Priority	Responsibility	Funding Source	Percent Complete
	8. Map routes and pavement markings. Make mapped routes available for public access and keep data current using GIS.	2026 Onward	DPW & P and Planning	City, Grants	
	9. Consider improving access to parks with infrastructure improvement projects that involve bike lanes and sidewalks to improve connectivity and access.	Ongoing	DPW & P	City, Grants	
	10. Consider advancing Mill Street and North Lake Avenue opportunities for trail and bike routes.	2026 Onward	DPW & P	City, Grants	
Objective 7d Trail System Upgrades	1. Consider improving existing trail systems. Construct new trail systems and provide directional signage to create a more integrated and connected system. Wherever possible improve trail systems to provide ADA access.	Ongoing	DPW & P, GWLT, Park Spirit and Mass HUD	City, Grants	
	2. Fund trails and signage. Consider use of DCR MassTrails Funding.	Ongoing	DPW & P, GWLT, Park Spirit, MassDot and Mass HUD	City, Grants	
	3. Complete a Trail Master Plan City-wide and create a layer in the City GIS system to record and identify limits. Inventory physical conditions and trail characteristics (surface types, widths, accessibility).	2022 Onward	DPW & P, GWLT and Park Spirit	City, Grants	
	4. Coordinate with outdoor enthusiasts to maintain an on-line information system for trail systems located within the City (and connecting to other regional facilities).	Ongoing	DPW & P, Planning, City GIS, GWLT, Park Spirit and Mass Audubon	N/A	
	5. Collaborate with universities to create and map routes and ID locations where new trails and/or networks are needed to improve connectivity.	2024 Onward	DPW & P, GWLT, Park Spirit, Mass Audubon, Colleges and Universities	City, Grants, Partnerships	
Objective 7e Land Purchases	1. Purchase or acquire the rights to certain lands (see Goal 1d) with the intent of improving connectivity between open space assets.	Ongoing	DPW & P, Planning and GWLT	City, Grants, Partnerships	
	2. Prioritize properties that provide access points, have climate resiliency benefits (cooling and/or stormwater or floodwater mitigation, etc.) or are in EJ Neighborhoods.	Ongoing	DPW & P, Planning and GWLT	City, Grants, Partnerships	

Goals & Objectives	Actions	Priority	Responsibility	Funding Source	Percent Complete
Objective 7f Encouragement of Neighborhood Preserves	1. Purchase or acquire the rights to certain lands (see Goal 1d) to benefit specific underserved neighborhoods and the general public and to fill geographic voids in the system.	Ongoing	DPW & P, Planning and GWLT	City, Grants,	
Objective 7g Public Transportation System Enhancements	1. Continue to improve public transportation connections and stops to important park and open space assets throughout the City.	Ongoing	WRTA	Transportation	

Goal 8: Plan/Design Open Space Improvements to Meet Current and Future Needs					
Objective 8a Evaluate Existing Open Space Opportunities	1. Make use of the city's updated Geographic Information System (GIS) and other survey and master plan reports to evaluate and inform residents and visitors of existing open space assets.	Ongoing	DPW & P, Planning, City, GIS and Urban Innovation	City, Grants	
	2. Develop system for user feedback via open-source platforms and/or social media protocols.	Ongoing	DPW & P, Planning, City GIS and Urban Innovation	City, Grants	
	3. Update community survey and public outreach efforts to meet the needs of a changing population.	Ongoing	DPW & P and Urban Innovation	City, Grants	
	4. Explore partnerships and advocating groups to participate in the sharing of information about various park and green space resources using social media.	Ongoing	DPW & P and Urban Innovation	City, Grants	
	5. Refer to the existing Rectangular Field Master Plan for new field development.	Ongoing	DPW & P	City, Grants	
	6. Complete or update Facility Master Plans for all parks.	Ongoing	DPW & P	City, Grants	
	7. Include field lights, pedestrian lights, and security cameras in all renovation of parks to increase usability, safety and play.	Ongoing	DPW & P	City, Grants	
Objective 8b Introduce New Recreation Facilities and Programs	1. Through interactions with elected officials, constituents, and advocacy groups, confirm the desire and the need for new types of recreation facilities and programs.	Ongoing	DPW & P	City, Grants	
	2. As new needs are identified, evaluate the potential for converting existing or underused areas of parks and open space properties.	Ongoing	DPW & P	City, Grants	

Goals & Objectives	Actions	Priority	Responsibility	Funding Source	Percent Complete
	3. Ensure that new facilities are aligned with increased funding for maintenance.	Ongoing	DPW & P	City, Grants	
	4. Create connections and improve signage at conservation parcels that currently have no access.	Ongoing	DPW & P and Planning	City, Grants, Partnerships	
	5. Explore how to provide high quality parks to underserved areas without displacing current residents (greening without gentrification).	Ongoing	DPW & P	City, Grants	
Objective 8c Evaluate New Open Space Opportunities	1. Make use of the city's updated Geographic Information System (GIS) when seeking out opportunities for new recreational venues.	Ongoing	DPW & P, Planning and GIS	City, Grants	
Objective 8d Explore Feasibility of Pilot or Innovative Use Programs	1. Play Streets Program, explore the closing of specific streets to traffic on a routine basis and open the space for the community use to encourage physical activity, particularly in neighborhoods that lack sufficient open space.	Ongoing	DPW & P, Planning, WPD, WFD, Urban Innovating and Cultural Development	N/A	
	2. Explore streets that can potentially be converted into pedestrian only facilities or limited vehicle access areas (certain days/times, etc.)	Ongoing	DPW & P, Planning, WPD and WFD	City, Grants	
	3. Conduct Pilot Street Visioning Demonstrations: Usually conducted by volunteers over a weekend, street furniture and temporary installations, such as benches, plantings, and street striping, can be installed and used by the public to envision streetscape potential for recreation and cultural opportunities. Examples of these installations are "Park(ing) Day" or "Parklet" pilot programs.	Ongoing	DPW & P, Planning, WPD, WFD, Urban Innovating and Cultural Development	City, Partnership, Volunteers	
	4. Explore pop-up or pocket parks, green space in priority areas (Mill Street, Lake Ave, etc.). Consider partnerships with universities.	2022 Onward	DPW & P, Planning and Urban Innovation	City, Partnership, Volunteers	
	5. Consider controlled burn as management strategy at selected sites with Fire Department training as a mutual benefit.	2025 Onward	Planning and WFD	City, Grants,	

Goal 9: Expand Recreational Programming

Objective 9a Comprehensive Recreation Program Inventory	1. Continue to develop, expand, and manage a comprehensive menu of recreation program offerings.	Ongoing	DPW & P, Cultural, Elder Affairs and Youth Opportunities	City, Partnerships, Grants	
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Goals & Objectives	Actions	Priority	Responsibility	Funding Source	Percent Complete
	2. Explore activities that support a full range of populations and age groups that are close to the communities that they are intended to serve (or provide transportation options). Examples of program offerings might include futsal, cricket, aerobics, zumba, yoga, salsa, tai chi etc. Some of the well-suited parks for this activity would be Elm Park, Green Hill Park, Lake Park, and Crompton Park.)	Ongoing	DPW & P, Cultural, Elder Affairs and Youth Opportunities	City, Grants, Partnerships	
	3. Explore opportunities for food-production programs within park and open space properties, and form (including arrangements with food truck vendors) new partnerships to facilitate.	Ongoing	DPW & P, REC, Planning, Inspectional Service, Cultural Development and Urban Innovation	City, Grants, Partnerships	
	4. Meet with local health clubs and healthcare providers (e.g., Fallon Clinic, UMASS Medical and St. Vincent's) to seek their participation in recreation program offerings.	Ongoing	DPW & P, Cultural Development, Elder Affairs, Health Department and Youth Opportunities	Partnerships	
	5. Explore funding for a shared recreation programming position between Parks & Elder Affairs.	2024 Onward	DPW & P and Elder Affairs	City, Grants, Partnerships	
Objective 9b Increase Public Funding	1. Pursue additional City funding through the annual operational budget process that allows the hiring of dedicated recreation program staff within the Department of Public Works & Parks, Division of Parks and Recreation & Cemetery.	Ongoing	DPW & P and Youth Opportunities	City, Grants	
	2. Fund inventories of and master plans for passive recreational areas including baseline conditions where none exist, forest cutting plans, and dedicated land management of sensitive habitats.	Ongoing	DPW & P and Planning	City, Grants	
	3. Explore Funding to support Con Com for active management of passive recreation areas rather than nuisance maintenance which is what is currently funded.	2024 Onward	DPW & P, Con Com and Planning	City, Grants	
	4. Create capital funds for acquisition of open space to assure ability to acquire priority acquisition parcels as land becomes available for disposition.	2024 Onward	DPW & P, Con Com and Planning	City, Grants	

Goals & Objectives	Actions	Priority	Responsibility	Funding Source	Percent Complete
Objective 9c Increase Private Participation	1. Meet with private partners interested in sponsoring specific recreation programming opportunities or endowing a recreation position.	2025 Onward	DPW & P, Youth Opportunities and Cultural Development	Partnerships	
	2. Meet with other like-minded public and private groups and agencies that are already promoting public awareness of open space programs.	2025 Onward	DPW & P, Youth Opportunities and Cultural Development	Partnerships	
Objective 9d Heighten Public Awareness	1. Develop a public education and public relations strategy (public workshops, information brochures, links on the City's web site, use of social electronic media) to inform citizenry on open space and recreation matters.	Ongoing	DPW & P, Planning, GWLT, Urban Innovation, City Manager, Communication and Cable Services	Partnerships	
	2. Foster the advancement of a new generation of park stewards through outreach and engagement.	Ongoing	DPW & P, Planning, and GWLT	Partnerships	
	3. Update the guide to hiking in and around the City, particularly featuring the lands of the Greater Worcester Land Trust. http://www.hikeworcester.com/index.html	2025 Onward	DPW & P, Planning, GWLT, Park Spirit and Mass Audubon	Partnerships	
	4. Explore options to improve communication so residents are aware of programs and resources.	Ongoing	DPW & P, Urban Innovation, City Manager, ConCom and Cable Services	City	

Goal 10: Resiliency of Open Space

Objective 10a Resiliency Policies	1. Establish an internal advisory group that identifies specific steps that can be taken to make parks and open space operations and management more resilient and meet on a regular basis to chart progress.	2020 Onward	DPW & P, Planning and ConCom	N/A	
	2. Identify MVP state grant potential for heat island, and flooding issues.	2022 Onward	DPW & P and Planning	City, Grants, Partnership	

Goals & Objectives	Actions	Priority	Responsibility	Funding Source	Percent Complete
	3. Create Best Management Practices (BMPs) for implementation in parks, open space and streetscape projects that facilitate climate resiliency goals. Emphasis on addressing flooding and improving water quality.	2022 Onward	DPW & P, Planning and ConCom	City, Grants, Partnership	
	4. Develop an implementation plan for those applicable elements of the Green Worcester Plan.	2022 Onward	City	City, Grants, Partnership	
	5. Heat island mapping, canopy mapping, and flood mapping integrated into the GIS system to accurately identify related environmental stresses.	2025 Onward	DPW & P, Planning and GIS	City, Grants	
	6. Explore partnerships or acquisitions of parcels in those areas that are lacking adequate shade. Explore shade trees and overhead structures to these parcels.	2025 Onward	DPW & P and Planning	City, Grants	
Objective 10b Resiliency Funding	1. Develop full IPM to open space for parks and better prepare for climate change challenges.	2025 Onward	DPW & P	City, Grants	
Objective 10c Resilient Designs	1. Explore floodable areas in parks to mitigate known stormwater flooding problems. Increase capacity of flood storage in those areas.	2025 Onward	DPW & P	City, Grants	
	2. Explore Low Impact Development (LID) into park and open space designs. Study and explore more ways to reduce maintenance costs of these systems.	Ongoing	DPW & P, Planning and ConCom	City, Grants	
	3. Identify, hire, and train new staff that can manage and maintain Low Impact Development Infrastructure.	2022 Onward	DPW & P	City	
Objective 10d Resilient Park and Open Space Management Practices	1. Explore more robust maintenance procedures to clean stormwater management systems including catch basins, manholes, storage facilities (below and above ground) and related infrastructure to eliminate flow of contaminants and sediments off site.	Ongoing	DPW & P	City, Grants	
	2. Improve quality of surface conditions to eliminate damage related to large and increasingly frequent storm events. Patch and repair paved surfaces, stabilize soft surfaces through more aggressive maintenance protocols to maintain higher quality vegetative cover.	Ongoing	DPW & P	City, Grants	
	3. Expand aeration of fields and other open lawn areas to improve infiltration and recharge, and to reduce damage caused by large storm events.	Ongoing	DPW & P	City, Grants	

Goals & Objectives	Actions	Priority	Responsibility	Funding Source	Percent Complete
	Consider allowing informal lawn areas to become established as meadows to be more resistant to erosion and conducive to recharge. This approach could yield cost savings and help to reduce heat island impacts.				
	4. Hold contractors accountable for tree installations to reduce the number of plantings that fail on an annual basis.	Ongoing	DPW & P	City, Grants	

Goal 11: Establish Benchmarking Protocols for the Worcester Department of Public Works & Parks

Objective 11a | Benchmarking the Worcester Parks, Recreation and Open Space System

1. Using the facilities inventory developed during the Open Space and Recreation Plan process and establish an approach to completing a benchmarking analysis that would compare Worcester to other cities in the US with similar populations and demographics. Use NRPA as a resource for information and methodologies and obtain additional information, as available from other similar New England communities with populations between 100,000 and 200,000.
2. Complete a similar analysis to determine comparisons for maintenance and operations, capital and programming protocols and funding on a per capita and per acre of land basis.
3. Position the City for accreditation in accordance with the National Recreation and Commission for Accreditation of Parks and Recreation Agencies (CAPRA) requirements to join two other accredited communities in New England and 183 in the US.

Ongoing	DPW & P	City	
Ongoing	DPW & P	City	
Ongoing	DPW & P	City	

Goal 12: Direct Funding for New Programs and Facilities that Promote Diversity, Equity, and Inclusion (DEI)

Objective 12a | Work to create an open space system that is reflective of a diverse, equitable and inclusive (DEI) Worcester community

1. Provide additional outreach to environmental justice communities with opportunities for recreation programming and refurbished physical facilities.
2. Schedule a proportionate number of meetings pertaining to park, open space and recreation system matters within environmental justice neighborhoods.
3. Increase diverse efforts to recruit community members to positions within the Parks and Recreation Commission.

Ongoing	City	City	
Ongoing	City	City	
Ongoing	City	City	

A. TARGETED PARK FACILITY MASTER PLANNING

Following is a summary of targeted park and open space master planning needs. Note that funds for these master planning efforts have already been secured or will be secured during subsequent years. When complete, nearly 50% of the 61 parks and recreation open space properties will have had a master planning effort completed and on file. The City's goal is to make each master plan document available through the Department's web site.

The Action Plan Map Figure 8 graphically depicts each site where a master planning effort has been identified as a need.

The following list of targeted Master Plans for park facilities is by alphabetical order, not prioritized yet:

1. 149 West Boylston Drive
2. Apricot Street Playground
3. Banis Play Lot
4. Bell Hill
5. Blithewood Park
6. Boynton and Cascades Park
7. Dodge Park
8. East Park
9. Fairmont Park
10. Green Hill Park Update
11. Lake Park
12. Lake View Playground
13. Logan Field
14. Ramshorn
15. Salisbury Park (Bancroft Tower)
16. Ty Cobb Park
17. Worcester Common Update

B. PARK ACQUISITIONS

As noted throughout the Action Plan descriptions that form the majority of this Section, the City should remain vigilant in regard to acquiring the rights to properties that help protect, enhance (by meeting important needs and/or objectives) or expand the open space and recreation system. The following properties or geographic areas have been specifically identified, but other properties should be considered as opportunities arise.

Targeted For Trails

- Tatnuck Brook vicinity to Cook Pond, Smith Pond, Tatnuck Brook, Patch Reservoir and Patch Pond, Coes Reservoir to Middle River and across to Broad Meadow Brook property ending at Route 20.

Targeted Parcel Acquisitions

1. Cascades Triangle (at the intersection of Olean Street and Cataract Street).
2. North of Ararat Street held by St. George (to connect Worcester park Ararat Street facility and Bovenzi Conservation Park).
3. South of wood land at Colony retirement Homes, and the Worcester Animal Rescue Center.
4. Mass Port parcels (east of airport).
5. Southwest of God's Acre property.
6. Southwest of Kettle Brook.
7. Conservation Restriction with Tatnuck Country Club.
8. Southwest of Coes Pond Beach.
9. East of Bell Pond.
10. Southeast of Green Hill Park.
11. Various Parcels in Environmental Justice Population Areas.

C. TARGETED PARKS IMPROVEMENTS

Please note that lists under each category are by alphabetical order, not priority.

Category A

Construction improvements are underway at the time of this writing:

1. Coes Beach
2. Coes Park
3. Columbus Park
4. Farber Field
5. Hope Cemetery
6. Greenwood Park
7. Institute Park (O'Connel Field)
8. Mulcahy Field
9. Providence Street P.G.

Category B

Funding for construction improvements has been secured and improvement plans are being developed:

1. Coal Mine Brook
2. Crompton Park
3. Green Hill Park
4. Greenwood Park
5. Hope Cemetery

Category C

Funding has not been secured, but the need for construction improvements has been identified:

1. 149 West Boylston Drive
2. Apricot Street Playground
3. Banis Street Playground
4. Beaver Brook Park
5. Bell Hill Park
6. Bennett Field
7. Blithewood Park
8. Boynton
9. Burncoat Park (North Park)
10. Burncoat Street Playground
11. Cascades Park
12. City Hall Common
13. Coes Pond Park
14. Cookson Field
15. Crompton Park
16. Dodge Park
17. Duffy Field
18. East Park
19. Elm Park
20. Fairmont Park
21. Grant Square
22. Great Brook Valley Playground
23. Green Hill Park
24. Greenwood Park
25. Hadwen Park
26. Harrington Field
27. Holland Rink Playground
28. Holmes Field
29. Hope Cemetery
30. Indian Hill Park
31. Indian Lake Beach
32. Institute Park
33. Kendrick Field
34. Lake Park
35. Lake View Playground

- 36. Logan Field
- 37. Morgan Landing
- 38. Mulcahy Field
- 39. Oakland Heights Playground
- 40. Ramshorn
- 41. Rockwood Field
- 42. Salisbury Park (Bancroft Tower)
- 43. Shore Park
- 44. South Worcester Playground
- 45. Tacoma Street Playground
- 46. Ty Cobb
- 47. University Park (Crystal Park)
- 48. Vernon Hill Park



Institute Park

PUBLIC COMMENTS

An initial draft of the Open Space and Recreation Plan update was posted on the City's website on **June xx, 2021** for public review and feedback.

A final draft was posted on the City's website, on **December xx, 2021** for final public review and feedback.

The Open Space and Recreation Plan's availability was advertised in all public meetings and it was made available to about a dozen City Departments, Divisions, Commissions and Committees and to other entities such as the Greater Worcester Land Trust, Mass Audubon and Walk/Bike Worcester.

Open Space Plan documents have also been vetted with and reviewed by the Commonwealth of Massachusetts, Division of Conservation Services and the Central Massachusetts Regional Planning Commission.

The final document has also been presented to the Worcester Parks and Recreation Commission, and to the Worcester City Council for review, consideration and for approval.

To the greatest extent possible and as appropriate and applicable, all comments and feedback have been integrated into the final published Worcester Open Space & Recreation Plan.

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Coes Pond Binienda Beach

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REFERENCES

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Indian Hill Park

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Elm Park

APPENDIX

- A MAPPING**
- B PUBLIC MEETING NOTES**
- C PUBLIC SURVEY RESULTS**
- D SITE ASSESSMENT FORMS**
- E ADA SELF-EVALUATION**
- F COMMENT LETTERS**
- G ADDITIONAL INFORMATION**

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